Address
on
CLINICAL MEDICINE.

Delivered before the Clinical Society, Jan. 26, 1872.

BY SIR WILLIAM GULL, BART., M.D., F.R.S.

(*Concluded from p. 140.*)

A GREAT nature-philosopher (Oken) has said that every part of the body is nervous—that bone is hardened nerve. Whether this view be extravagant or not I will not stop to discuss, since we must believe that the elements of the groups of the different textures are living—that each has its own biology and pathology. The history of the process of life, from the primitive trace in the ovum to the last breath of age, is a series of illustrations of textural growth and decay; impressing upon us the truth that, however necessary it may be to obtain general conceptions of the organic law, it is only by the most special study that we can pursue the objects which medicine proposes. The history of whole organs in us confirms this truth. Could the early fœtus feel and reason upon its existence, what would be its disquiet at the apparently revolutionary changes at work in its structures—atrophy everywhere side by side with growth,—until, in ignorance, it might desire to forestall and hinder the organic laws. These are fanciful speculations, but may bear upon our ignorance at a more advanced stage. It is to be hoped that the new hospital now established in London for comparative pathology will afford us a larger knowledge of the diseases of the different tissues and organs in the animal series, and will show us the natural history of disease, not only on a larger scale, but with a truer appreciation of it, than we could gain if our observations were limited to the human body only. For if we are to operate successfully on living things, we must be largely informed as to the full meaning, not alone of the whole individual, but of its minutest parts.

So far for the general scope of clinical work, a due estimate of which bears directly on diagnosis, since the eye sees no more than it brings with it the power of seeing, and as diagnosis is the basis of practice, it must be laid four-square to every aspect of knowledge.

Improvement in physical diagnosis must always be an object immediately dear to a Clinical Society, and yet it is often perhaps for medicine, for the most part, only the preliminary process, however it may be perfected. For practice upon the exactest mechanical diagnosis follows the intellectual determination of the vital conditions, and of the possible and the impossible. It may be granted that the practically possible and impossible are changing, and our efforts are to destroy the latter. Still, there is always a practical impossible, and in relation to disease we have always to make such a diagnosis as shall show what we can and what we cannot do. Perhaps it would be well if members of this Society would bring before it some illustrations of the impossible as well as of the possible. It would tend to prevent us from making foolish, because ignorant, attempts to do that which cannot be accomplished; attempts which only result in loss and hurt to the individual. As a practical profession, this is not an unimportant consideration. I remember my friend Dr. Acland, the present Regius Professor of Medicine at the University of Oxford, saying to me that he would have engraved round the Radcliffe Infirmary the saying of Trophimus the Ephesian, "He is the best physician who knows what is possible and impossible." The negative results of such a mental exercise are by no means indifferent if one may judge by the results which are often seen in the treatment of chronic incurable disease where the small remnant of life is wasted in futile and painful efforts at cure. And in the same category are the attempts at the impossible upon those unfortunate members of the human family who are born with a feeble vital capacity. Delicate women, for instance, who, if I may say so, have no more stature of strength than falls to the lot of a canary bird, and yet upon whom we try, how vainly, all the chemistry of tonics. A friend of mine once consulting me on such an instance, I could not refrain saying to him, "Do you know what you are trying to do? You are trying to put a quart measure into a pint." He replied, "I have been giving strengthening medicines to this patient for years. I have exhausted every means, and yet she is ailing, always ailing." I saw the other day an advertisement inviting persons of short stature to come and be made tall, and with the promise that any defects of height could be duly rectified—a proposition not much more absurd than that we are expected to meet promptly, by a prescription of iron or quinine, for any sort of debility that may come before us. As our business is not knavery but knowledge, it is clear that the diagnosis of the possible and the impossible is of the first importance that we may not waste words and efforts on useless pursuits.

On physical diagnosis I shall not detain you. All are fully alive to the importance of advancing physical diagnosis to the fullest perfection. Therefore, when any new means or increased exactness of the old means of physical diagnosis is discovered, this Society cannot but hail it with delight, even though it may throw us for a time into doubt and confusion. Such is the state of thermometric knowledge at the present moment. I have more than once been tempted to lay aside my thermometer because it has contradicted my clinical knowledge. But it must be so at first with all new evidence; it takes time to bring it fairly into court.

But that vital diagnosis to which I have alluded, and which weights and measures, however refined, cannot give us, comes from experience. Take, for instance, such an eruptive fever as small-pox. From its outset its future can be predicted, if not as to intensity, at least as to character and duration. The poet might well insist, and chiefly is it true in clinical medicine, "*per causas scire est vere scire.*" This, which, in contrast with mechanical diagnosis, may be named vital diagnosis, is another most important object at which this Society aims. What our actual knowledge on this is may be illustrated by reference to the diagnosis of pneumonia. The mechanical diagnosis of pneumonia is familiar through physical signs, but how far from exact practice does this land us. For prognosis and treatment we need a deeper insight. Some forms of pneumonia will, we know with certainty, clear up in seven days, whilst others will never clear up at all, although both may begin much alike. One has, to use a former expression, a beginning, a middle, and an end; the other has but a beginning. What are the grounds for a true discrimination of each and of all the intermediate gradations, and of that form which, as I have said, has but a beginning with no other ending but death? What are the invariable facts which tell us why this case shall degenerate into a form of phthisis, going on, in a variable degree, for years, whilst that shall run its course more quickly, killing the patient in a few weeks or months? We know, as the logicians say, the differentiæ of common inflammation and the various forms of specific inflammation—rheumatic, syphilitic, gouty,—all of which are modes of vital diagnosis. If we put the word aright upon them we adapt the treatment accordingly; but of pneumonia we have no such exact diagnosis, and I speak of pneumonia since the pulmonary system equals in a sense the systemic. It cannot be doubted that the tissues of the lung undergo a great variety of changes, having different vital qualities. To speak with all respect of so distinguished a writer on phthisis as Dr. Williams, I cannot but believe that in his cases many of the courses as to time, taken by the cases recorded, varied because the vital conditions from the beginning were different, and that the result was not altogether due to the treatment prescribed. The dynamics from the beginning were different, though difficult or impossible to distinguish. On the skin we can better distinguish, but not yet so accurately as we ought. It is too often but a general distinction, as of eczematous affections from leprous affections, and of papular from both; but in pneumonia and pleurisy, renal diseases and other internal affections, we have often not even this accuracy of vital diagnosis; and, therefore, I call upon this Society to perfect it. The conditions of physical diagnosis are im-

perfect, but those of vital diagnosis are much more imperfect.

Lately you are aware I have been called upon to make a diagnosis of the finest kind, of the working of the function of the brain as expressed in the mind—not to diagnosticate a tumour, a ramollissement, a degeneration of the brain, but to test its moral and intellectual dynamics. There is often encountered a prejudice at the outset of such an inquiry from the taunt that the doctors assert that such and such a person is insane because he has committed a crime. But permit me for a moment to point out that we judge of the previous strength of any material by the strain it will bear. Should it break under the test, it would be absurd to maintain it could not have been weak or imperfect beforehand; and may not the first evidence of mental and moral defect be due to some stress of circumstances, often exaggerated and distorted, which is put upon the brain, and that break-down which in another would be crime becomes the first sign of insanity? In the defects and diseases of other organs this is a matter of the tritest experience. How often does aortic or mitral imperfection first become known by some sudden exertion; yet who would on that account deny the previous weakness? The beginnings of disease are, as a rule, latent and obscure, and discover themselves only when some strain is put upon the weak part. Illustrations of this are at hand on all sides, whether in the heart, the lungs, the abdomen, or the brain. It was only our ignorance which led us formerly to believe in acute idiopathic disease in healthy subjects, and it is probably equally so with nervous conditions, and with the mind. There are, doubtless, many persons living uneventful lives who maintain a sane equilibrium until influenced by some circumstance, real or imaginary, and who then at once show their weakness; and yet from the high seat of justice we often hear the objection put forth as an argument that there was no sign of insanity beforehand, and therefore the patient was sound. But the sign of unsoundness may be what has occurred. I am sure we, as clinical students, have our minds perfectly alive to this, and although some of the most learned and practical men in our profession maintain that the diagnosis of the intellectual and moral status is an inquiry we ought not to take up, and that the common sense of man fits every one equally to make this diagnosis with the most accomplished physician, I cannot think so; and if it be a fact it must not so remain, for it would be unworthy of us to leave uncultivated a field of inquiry so important to man. *Medici sumus, humani nihil nobis alienum esse putamus.* As medical men we know of tendencies to latent insanity without the least overt evidence of their existence; minds which on a strain will certainly give way. We know this as well as we know of weak and imperfect hearts or other viscera, which perform their functions fairly until called upon to meet some extra demand, and then they fail altogether. The onset of acute disorders of mind or body, to use a common expression, by no means coincides with the date of their causes. This is so well established in medicine that we go back upon a latent cause from the occurrence of acute effects, feeling assured we shall find it, however previously hidden. It is only the ignorant who can overlook these connexions, and yet in matters of the mind this oversight is esteemed the safeguard of truth.

I come now to the last division of my subject, Therapeutics. The other aspects of medicine might afford sufficiently pleasant contemplations, but *finis coronat opus*—care, and where possible medication, in order to cure. We are often twitted with being, as I have before said, merely passive attendants upon and worshippers of Nature. As Goethe satirically says, "Man durchstudirt die gross', und kleine welt um es am ende gehen lassen wie's Gott gefällt." This, however, I repudiate. We believe that God's will is that we should be wise and active, and when we say, and I am sure our profession is not behind any in devoutly saying, "Thy will be done," it is not that we may sit down, like fatalist Moslems, and let the supposed inevitable pass over us; but ours is an active interpretation of the prayer, that we may learn the Divine will in order to obey it, convinced that the Divine will is the exact contrary of ignorance. There is, no doubt, a time to each when he must bear the lot in patience and submissively, but, as students and practitioners of medicine, our interpretation of the Divine prayer is in an active sense, and should excite us to every exertion. The will of God, as expressed in the purposes of the human intellect, is apt to be too lightly passed over, but he who has but a faint conception of that purpose will not be open to Goethe's remark of letting events pass on without any effort to control them. It is only they who are weak in faith and intellect who exclaim, "The world (time) is out of joint. Oh, wretched spite that ever I was born to set it right!"—for this is our true sphere of work. Whilst we more clearly discern the operation of those forces which bring health out of disease, we are not contented to be spectators only. Efforts of nature are regarded with watchfulness and doubt, and often must we agree with Professor Haughton, who, when told that the evacuations of cholera were due to an effort of nature to cure the disease, said: "I will tell you what Nature wants; she wants to put the man in his coffin. And that is what she succeeds in doing for the most part." In fact, the expression "effort of nature" is little else than a vague metaphysical conception, a mere *imago* of the true and practical *idea* of the recuperative forces which are at work in the organism, and which collectively we name the *vis medicatrix naturæ*—that centripetal tendency which restores the disturbed relations. Were we able to make a due analysis of this tendency in us, it would indicate a true science of therapeutics. It would show that in the subject of typhus or typhoid, or other fever, there were, together with the more obvious fever facts, others correlated to them, by which health is for the most part restored. In other words, that under the conditions of disease there lie physiological processes, which not only restore the normal equilibrium, but which leave a permanent resistance to any similar disturbance. The causes of this immunity are as much facts for our study as are those which we more commonly call the disease. For example, in small-pox, to the indifferent observer the whole disease is embraced in the description of its symptoms and the eruption; but there is a most important obverse to these in those prominent physiological changes by which the subject of them is likely to obtain a permanent indifference to the variolous process. I desire more expressly to say that, in the class of fevers, what we term the disease is but the attendant disturbance of an underlying process, which being completed, its accidents subside. We owe a very practical application of these views to Dr. Stokes, of Dublin. In some excellent papers on fever, he long ago pointed out that the various local affections in fever must be looked upon as part of the fever itself, and not as separated or separable conditions. I well remember the time when the irritation of the brain in fever was regarded as inflammation of the meninges, to be treated with mercurial inunction; when irritation of the bowels and the fetid evacuations were to be corrected by giving the grey powder; the obstruction of the air-passages to be medicated by blisters and expectorants. So, when I had to teach medicine, I impressed as far as I could upon the students of my class the importance in therapeutics of minding these local affections as Nelson minded the signal given him to retire from action; whilst, on the other hand, we maintain to the best of our power the strength of the patient.

In therapeutics we have no kinship with those who believe that diseases are only sets of symptoms to be combated by drugs. The symptoms of a disease may indeed give but doubtful indications for treatment. The worst diseases have but few and not prominent symptoms, and even when the symptoms are characteristic they are not the disease, and frequently the most numerous symptoms occur without any disease at all. It may be all very well for the charlatan to make them the whole object of his efforts, but to the better informed the chief fact is the condition which underlies and produces them. In therapeutics the greater often depends upon the less. It has been said that Wellington overcame his great antagonist by attending to the shoes of his soldiers. This may have been so, for often we see great purposes frustrated by neglect of trifles: a man brought through his fever and dying of bedsore; a broken spine in process of repair, whilst death comes on from the careless passing of a catheter. With the gold-headed cane and the horsehair wig passed, we may hope, the days of pompous inanity; and we may further hope that nothing will be thought unworthy the attention of the physician which can contribute to the saving of a life.

For the surgeons, as I have hinted, a new prospect is

opening. Should advancing knowledge show that we have parts or organs of doubtful use, and especially if these equivocal parts are liable to disease,—what a land of promise for operations!

But I must forbear. I am sure we have a hopeful future before us, though it may not be in such a direction, and it is my duty and my privilege to invite you to enter upon it with industrious hands and true hearts.

Clinical Lectures
ON THE
SIGNIFICANCE OF UTERINE AND VAGINAL DISCHARGES.

BY ROBERT BARNES, M.D. LOND.,
OBSTETRIC PHYSICIAN TO ST THOMAS'S HOSPITAL, AND EXAMINER IN MIDWIFERY AND THE DISEASES OF WOMEN TO THE UNIVERSITY OF LONDON AND THE ROYAL COLLEGE OF SURGEONS.

Discharges of Air.—Air may get into the vagina, if not into the uterus, in the non-pregnant state. In the normal condition the walls of the vagina are maintained in perfect contact, and no air, or probably very little, is admitted. But where the parts are greatly relaxed, the vulva open as when the perineum is torn, the lower part of the vagina is no doubt exposed to the contact of air. But the very condition of patency prevents the retention of the air to such a degree as to lead to its escape in perceptible volume. Air also penetrates where too large a pessary is worn, which keeps the vaginal walls apart. But under peculiar circumstances air enters in large quantity, to be expelled with noise. Dr. George Harley details* a curious case in which he carried out decisive experiments to prove the correctness of the diagnosis. A pluripara frequently expelled air from the vagina with a loud noise. It was ascertained that no connexion existed between the rectum and vagina. Dr. Harley took a full-sized male catheter, to which was attached a long india-rubber tube with a stopcock at the other end. The catheter was introduced into the uterus, the end of the tube with the stopcock being placed in a tumblerful of water. No air escaped when the instrument was in this position; but, on placing the open end of the catheter in the vagina, an instantaneous discharge of gas took place. The water was found to be sucked up through the tube into the vagina. It was found that the vagina sucked in and expelled the air by spasmodic action. It was further observed that the abdominal muscles assisted in the suction process. The uterus was completely retroverted. This displacement being remedied, and the patient's health improved by tonics, a cure ensued.

If you observe the vagina when the duck-bill speculum is applied, you will see movements of rise and fall under the influence of the rise and fall of the diaphragm. Dr. Adolph Rasch has investigated† the phenomena with great care. He says, if a multipara whose genitals are normal be placed on her back, with the thighs flexed and abducted, and the vaginal orifice closed, movements caused by respiration are seen, but no air enters. In the lateral position the same thing is observed even if the vagina is lax, and even when the perineum is ruptured. When the patient is placed in the prone position, or on all-fours, if the vulva be open, air will enter, because the intestines falling downwards by gravity causes a vacuum. Under this condition violent exertion may expel air, giving rise to vaginal flatus. If the abdomen be supported by the hands or by a bandage, no air enters.

There are several interesting applications of this knowledge. It teaches that the best position after labour, if not during labour also, is the dorsal; that the same position is also best in the case of pelvic abscess or hæmatocele discharging into the vagina; and that we must carefully consider this respiratory rise and fall of the vagina when selecting pessaries. It is by turning to account this action that we derive the greatest advantage from the spoon or Sims's speculum. The blade drawing the perineum well back, whilst the semi-prone position of the patient favours the falling forwards of the abdominal viscera, air fills the vagina, counteracts the effect of inspiration, and thus enables us to get a good view of the os uteri. The same position also greatly aids our efforts at reducing inversion of the uterus, and in replacing a prolapsed umbilical cord. In most operations, however, upon the uterus and vagina, where it is of importance to bring the uterus as low down near the vulva as possible, the dorsal position, by bringing the force of gravity to counteract the respiratory rise of the uterus, which can further be greatly aided by direct pressure by an assistant's hand above the symphysis pubis, is the best.

If we were to follow out in detail all the indications supplied by the examination of the discharges, we should be led through almost the entire range of uterine and vaginal pathology. This, in fact, is simply the converse proposition to one already stated—namely, that almost every uterine or vaginal disease is attended by discharge. But to adopt the discharges as our point of departure, from which to proceed to study and classify the diseases of which they are consequences, would be a most intricate course, and not the most orderly or profitable. I will therefore not pursue this method further than to give one instance of how we may apply it to clinical analysis. We will at our next meeting take hæmorrhage, and sketch what its purport is.

The Watery Discharges.—When these occur, you must first of all determine the presence or absence of pregnancy. It is no uncommon thing that discharges of water, more or less profuse, take place in pregnant women. This is the hydrorrhœa gravidarum. Gushes of water, quite clear, may occur at almost any time during pregnancy; but they are more frequent in the latter months, and especially in the last month. Happening at this time, they are commonly taken as an indication of commencing labour, and many are the false alarms which patient and doctor have to suffer from this cause. "The waters have broke," says the nurse. You go, as in duty bound, and find probably the os uteri closed, nothing resembling active labour-pains. What are you to do? If you wait for labour, you may wait for a week, or two or three weeks. If, on examination by ballottement, you find the child still floats in the uterus, the os uteri not open, and no active pains, you may go home and wait in peace for another summons.

What is the source and nature of this hydrorrhœa gravidarum? Several theories have been expounded. The character of the fluid differs in some respects from that of liquor amnii. It is odourless, and resembles blood-serum or the serous fluid effused in the peritoneal sac. Ruysch and Bœderer thought it came from ruptures of lymphatic vessels, or of hydatids of the uterus; Böhmer thought it escaped from a second abortive ovum; Delamotte and Cruveilhier that it came from a cyst near the ovum; Deleurye, Puzos, Naegele, and Dubois that it came from the inner surface of the uterus, being secreted externally to the ovum. Dubois says it is the result of loosening of the membranes from the uterus when the vessels pour out serum. Hegar says the source is the uterine glands of the decidua. Thus, he describes* the glands of the mucous membrane as being found in the decidua at the sixth month of gestation, and argues that their sudden disappearance in the subsequent months is improbable. In a case of hydrorrhœa he found in the decidua vera, at the beginning of the eighth month, an enormously developed glandular body. At the bottom of this morbid growth was a general hypertrophic condition of the decidua and its glands. These gave out the excessive secretions. In a case related by Dr. Graef,† repeated discharges took place, and the fœtus was expelled at the end of six months. The membranes were very delicate, and openings were found in them. In this case, it is probable that the fluid was true liquor amnii. In another case the patient suffered, during the last three months, from repeated watery discharges; the uterus rising and falling with the gathering and escape of the fluid. The membranes were found without rent. Graef regarded this as a case of catarrhal hydrorrhœa.

I believe there are various sources. In some cases the fluid is liquor amnii. This may come either from rupture

* Obstetrical Transactions, 1863. † Ibid., 1870.

* Monatsschrift für Geburtskunde, 1863.
† Jenaische Zeitschrift, 1865.

of the membranes; from rapid transudation under pressure from rapid formation and accumulation of liquor amnii in the amnion; or from the bursting of a cyst formed between the amnion and chorion, or between two layers of chorion, the proper amniotic sac remaining intact. In the majority of cases, however, the fluid is not amniotic; for when once the amniotic sac has fairly ruptured, labour is not far off. It is, then, the result of a rapid secretion from the uterine glands or from the cervical cavity. In the early months, whilst there is still a free space between the decidua vera and the decidua reflexa, there is a large area of developed glandular surface.

I have observed a *puerperal form of hydrorrhœa*. Thus watery discharges may continue for a month or longer beyond the proper lochial flow. Generally in these cases the water is dirty, discoloured, occasionally stained with blood, and offensive. The most common cause I have found to be the retention of a portion of placenta or of clots in the uterus; but a polypus may produce like results. The watery discharges alternate, but not always, with discharges of blood. The fluid may, under certain conditions, collect in considerable quantity in the uterus, so that the organ becomes greatly distended before the collection is expelled in a gush.

Sometimes watery fluid is mingled with air, constituting *physo-hydrometra*. This is also a puerperal or post-puerperal condition, and is commonly the result of retention of some portion of placenta or membranes, and the admission of air into the uterine cavity. If an examination is made when the uterus is relaxed after labour, especially if the hand be introduced into the uterus, the vaginal walls are separated from their usual contact, and a channel is formed along which air easily enters. Merely turning on the side, or a little more prone, will often, by favouring the fall of the uterus forwards, produce a vacuum into which air will rush. This is one reason amongst others why I am unable to approve of the abolition of the old-fashioned binder, which some people would condemn, for no better reason that I can see than because it is old-fashioned. After labour, especially in pluriparæ, the abdominal walls are so relaxed that they can give no support to the uterus. The binder does temporary duty for the inert abdominal walls. The history of physo-hydrometra is, I believe, this: a portion of placenta, membranes, or clots, remain in the cavity of the uterus after labour; some air gets in as I have described; decomposition ensues, and the gases of putrefaction are added to the air from without, whilst the os uteri is occluded by the placenta or blood-mass falling over it. When this occurs, there is invariably hectic or irritative fever; peritonitis and septicæmia commonly attend; great abdominal pain; the enlarged, distended uterus can be mapped out rising as high as, or higher than the umbilicus; and resonance is made out on percussion.

One condition, the result of impregnation, often leads to copious and repeated discharges of watery fluid: the *hydatidiform degeneration of the chorion*. In this case the ordinary signs of pregnancy may not be present, and even the patient herself may not think she is pregnant. There is, however, always evidence of enlargement of the uterus, and generally great pelvic distress. The water escapes in gushes at uncertain times; it is often tinged with blood, resembling red-currant water; it has not the offensive odour belonging to the watery discharges of cancer; sometimes, but not often until late in the progress of the case, cysts will be found swimming in the water; it is generally expelled with painful uterine contractions. In a case we recently had in Adelaide ward, the nature of the disease was not at first suspected. There was some abdominal enlargement, retention of urine requiring the catheter, and most distressing pelvic pain with irritative fever. The os uteri was found high up above the symphysis pubis, whilst behind it the pelvic cavity was filled with a large, rounded, firm mass taken to be either the retroverted gravid womb or a fibroid tumour. One day a large quantity of water, blood, and a mass of chorion-cysts were expelled. We had, in fact, the condition of retroverted gravid womb complicated with hydatidiform or cystic degeneration of the chorion.

Apart from pregnancy, watery discharges are often of grave significance. During and after the climacteric period, the most frequent cause is some form of malignant disease, especially the so-called cauliflower excrescence of the uterus. In this case other symptoms will probably point to the seat and nature of the disease. The fluid discharged is seldom clear; it is generally turbid, dirty, often tinged with blood, resembling water in which flesh has macerated; it contains shreds or flocculi of solid matter, the proceeds of superficial erosion or necrosis of the surface of the diseased growth, and is almost always of a peculiar offensive odour. It often alternates with hæmorrhage. Local exploration will place the nature of the case beyond doubt. Another form of malignant disease giving rise to watery discharges is the "oozing excrescence of the labia."

But we must remember that similar discharges may take place from polypus or inversion of the uterus. Hence we have another example of the wisdom of not pronouncing a diagnosis until we have made an internal examination. Water may escape in large quantity from the rupture or perforation of an ovarian cyst into the vagina. In such a case, the rapid concurrent diminution of the abdominal tumour will lead to the right conclusion.

CONTRIBUTIONS ON THE PHYSIOLOGY & THERAPEUTICS OF FOOD.

BY F. W. PAVY, M.D., F.R.S.,
LECTURER ON PHYSIOLOGY AND PHYSICIAN AT GUY'S HOSPITAL.

No. VI.

NITROGENOUS MATTER IN RELATION TO FORCE-PRODUCTION (CONTINUED).

PROFESSOR FRANKLAND* has shown that the results arrived at by Fick and Wislicenus afford in reality stronger evidence than they have contended for. Fick and Wislicenus were obliged to calculate the force-value of the nitrogenous matter, shown by the nitrogen in the urine to have been destroyed in the system, from the amount of force generated by the oxidation of its elements, because the actual determination for the compound itself had not been made. Professor Frankland, however, has since experimentally ascertained with the calorimeter the amount of energy or force that is evolved under the form of heat during the oxidation of a given quantity of nitrogenous matter as the oxidation occurs within the living system, where, it must be remembered, on account of the nitrogen carrying off the elements that are associated with it in urea, a portion of carbon and hydrogen escapes being consumed. Frankland's results give, as the actual amount of energy producible from the nitrogenous matter consumed in the bodies of the experimentalists, about half the quantity that they had reckoned in their calculation. Thus the results tell so much the more in favour of Fick and Wislicenus; and, taking all points into consideration, Frankland is of opinion that scarcely a fifth of the actual energy required for the accomplishment of the work performed in the mountain ascent could have been obtained from the amount of muscle (nitrogenous matter) that was consumed. Presuming the foregoing conclusions to be entitled to credence, the doctrine which ascribes muscular action to the oxidation of muscular tissue becomes utterly untenable.

Dr. Parkes has conducted, in a most careful manner, a series of investigations on the influence of rest and exercise under different diets upon the effete products of the system, and more particularly to test the accuracy of the results arrived at by Fick and Wislicenus. These investigations Dr. Parkes considered it desirable to make, because exception had been taken to the experiments of Professors Fick and Wislicenus on the ground "that no sufficient basis of comparison between periods of exercise and rest was given; that the periods were altogether too short; and that no attention was paid to the possible exit of nitrogen by the intestines."

The experiments were conducted upon perfectly healthy soldiers, whose regularity in diet and occupation, and whose habits of obedience, afford a special guarantee for the precision with which they will carry out the instructions imposed. The total nitrogen contained in the urine was de-

* On the Origin of Muscular Power: London Philosophical Magazine, vol. xxxii., 1866.

termined as well as the urea, such information supplying evidence of a more reliable nature than that afforded by the determination of urea, as had only been done in the experiments of Fick and Wislicenus and others. In these latter experiments it might reasonably be suggested that nitrogen escaped, as it in reality to the same extent does, in other forms than that of urea.

The experiments consisted of two series, extended in each case over several successive days. In the first series* a comparison is instituted of the products of excretion during rest and exercise under a non-nitrogenous diet. In the second,† the same comparison is made under a uniform diet containing an ordinary admixture of nitrogenous and non-nitrogenous food.

In drawing conclusions regarding the destruction of muscle by nitrogen eliminated, it is necessarily of the first importance that we see before us the whole of the voided nitrogen. Dr. Parkes is convinced, from his experiments, that no nitrogen escapes by the breath or perspiration, but that it is all to be found in the excreta from the kidneys and bowels. The evacuation of nitrogen by the bowel forms a comparatively small and varying amount, and, being derived from the undigested food and the unabsorbed digestive secretions, has no bearing in reference to the point before us. There remains only the urinary nitrogen to consider as a measure of the tissue-metamorphosis occurring in the system. With these introductory observations let us now see what light is thrown by the experiments of Dr. Parkes upon the matter under consideration. For the sake of simplicity, attention will be confined to the total urinary nitrogen voided, this giving, as already stated, more completely than the urea the information that is wanted.

The men forming the subjects of the first series of experiments are distinguished as S. and T. T., it is to be observed, was a much smaller man than S., weighing only 112 lb., against 150 lb., the weight of S. For six days the men were kept upon an ordinary mixed diet, and pursued their customary occupation. The urine was collected and examined during four out of the six days, and the following is the mean amount of the total nitrogen passed per diem:—

		Mean Urinary Nitrogen per diem.
Mixed diet with customary occupation:	S.	17·973 grammes.
	T.	13·409 „

During the following two days the diet was restricted to non-nitrogenous food, consisting of arrowroot, sugar, and butter. The sole nitrogen consumed—and this may be regarded as of no significance—was in the tea the men were allowed to drink, it being thought desirable not to deprive them of this beverage. Throughout the two days they remained as quiescent as possible, being allowed to get up, but not to leave the room.

		Mean Urinary Nitrogen per diem.
Non-nitrogenous diet, with rest:	S.	8·176 grammes.
	T.	7· „

The men were now put back for four days upon a mixed diet with customary occupation, just as at the beginning of the experiment.

		Mean Urinary Nitrogen per diem.
Mixed diet with customary occupation:	S.	12·988 grammes.
	T.	11·095 „

Next, they were restricted again for two days to the same non-nitrogenous food as before; but this time it was accompanied with active walking exercise. During the first day the distance walked was 23¾, and during the second 32¾ miles. The diet, it is stated, satisfied hunger, and there was no sinking or craving for other kinds of food. The results furnished were as follows:—

		Mean Urinary Nitrogen per diem.
Non-nitrogenous diet with active exercise:	S.	8·971 grammes.
	T.	8·034 „

To complete the experiment, four more days were passed under the mixed diet, accompanied by ordinary exercise. Rather more nitrogenous food was consumed during these four days than during the four days succeeding the two days' rest; the men feeling more hungry after the "work"-period than after the period of "rest." The mean for T. is for three days instead of four—one analysis having failed:—

		Mean Urinary Nitrogen per diem.
Mixed diet with customary occupation:	S.	13·361 grammes.
	T.	11·658 „

From this series of results we find there was no material variation in the amount of urinary nitrogen discharged during the two days when a distance of fifty-six miles and a half was walked, as compared with the two days spent in complete rest, on both occasions restriction to non-nitrogenous food being enjoined. Comparing both these periods, however, with those in which nitrogenous food was taken, we see a striking exemplification of the well-known fact that diet, on the other hand, exerts a marked influence over the amount of nitrogen eliminated with the urine. During each of the non-nitrogenous diet periods the quantity of nitrogen eliminated was very much less than during the others.

In Dr. Parkes's second series of experiments the amount of nitrogen eliminated was ascertained under the conditions of rest and exercise combined with a *mixed* diet. One of the two soldiers, S., was the subject of the former experiment. The other, B., was a fresh man, weighing 140 lb., and therefore nearer in size to S., who weighed 150 lb., than T. was, who weighed 112 lb. During the sixteen days over which the observations extended, each man took *precisely* the same allowance of food in the twenty-four hours—the food consisting of weighed quantities of meat, bread, potatoes, and other articles belonging to an ordinary mixed diet. For the first four days the men pursued their customary employment. The next two days were passed in rest. Then followed four days of ordinary employment; after this two days of active exercise, and finally four days again of ordinary employment. The amount of nitrogen eliminated by the kidneys during the several periods is shown in the subjoined table:—

			Urinary Nitrogen per diem.
Ordinary employment (mean of four days)	S.	...	17·857 grammes
	B.	...	18·502 „
Rest (mean of two days)	S.	...	19·137 „
	B.	...	19·471 „
Ordinary employment (mean of four days)	S.	...	17·612 „
	B.	...	18·485 „
Active exercise: walking on level ground 24 miles the first day, and 35 the second (mean of two days)	S.	...	19·646 „
	B.	...	19·959 „
Ordinary employment (mean of four days)	S.	...	21·054 „
	B.	...	20·092 „

In these results it will be seen there is nothing to sanction the doctrine that the source of muscular power resides in the destruction of muscular tissue. In two persons subsisting on an unvarying daily diet, and subjected to varying conditions of muscular exertion, we find nearly the same quantity of nitrogen eliminated during two days' hard walking as during two days of complete rest. It is curious, and also, it must be owned, does not appear explicable, that during the periods of both rest and active exercise the daily amount of nitrogen eliminated was in excess of that eliminated during the first two periods of ordinary employment; the figures at the same time for the associated periods respectively agreeing very closely with each other. In the third period of ordinary employment, however—that is, after the two days of walking exercise,—the nitrogen voided was greater in quantity than at any other time; still, the excess, it is noticeable, was not of a particularly marked description.

Comparing in detail the nitrogen eliminated during the corresponding portions of the two-day periods—those of rest and active exercise,—Dr. Parkes observes, with respect to the results presented: "On the first day of exercise the nitrogen in each man fell below the corresponding day of rest by 1·626 and 1·131 grammes. In the next twelve hours, which were almost entirely occupied in exercise [this period extending from 8 A.M. to 8 P.M.], the diminution was still greater, being 2·498 in 1·225 grammes, which would be equivalent to 5 and 2½ grammes for twenty-four hours. In the last twelve hours [8 P.M. to 8 A.M.] of rest after work, the

* Proceedings of the Royal Society, Jan. 1867, Vol. xv., No. 89.
† Ibid., June 1867, Vol. xvi., No. 94.

elimination increased greatly, so that 5·142 and 3·331 grms. more were excreted than in the corresponding rest-period." Seeking to reconcile his results in relation to muscular action, Dr. Parkes says: "It appears to me that we can only express the facts by saying that a muscle during action appropriates more nitrogen than it gives off, and during rest gives off more than it appropriates."

But must we, I would suggest, look only to the muscles as the source of the variation in the amount of nitrogen discharged in these experiments? The results, as a first point, conclusively showed that the nitrogen eliminated forms no measure of muscular work performed; and hence it may be inferred as a corollary that muscular work is not a result of muscle destruction. But, taking the variation in the voided nitrogen that was observable independently of that occasioned by diet, why, I ask, should we look exclusively to the muscles as the source?

Looking at the several daily amounts of nitrogen discharged, I remark the presence of instances in which considerable variation occurs within the respective periods themselves. Thus, during the first day of the first period, when the men were engaged in ordinary employment, B. discharged 20·417 grammes of nitrogen, and during the third day only 17·090—a difference approaching to three grammes and a half. Again, during the last period, which was also spent in ordinary employment—and it will be remembered the daily diet was the same throughout the experiment,—the urinary nitrogen voided by both men stood as follows:—

	S.	B.
1st day ...	21·25 grammes	... 20·25 grammes.
2nd „ ...	19·942 „	... 19·273 „
3rd „ ...	23·488 „	... 19·248 „
4th „ ...	19·536 „	... 21·597 „

On the third day, it thus appears, S. discharged nearly four grammes of nitrogen in excess of that on the fourth day, and about three grammes and a half in excess of that on the second. No corresponding fluctuation was observable in the case of B. Here, then, are marked variations in the elimination of nitrogen without variation of muscular action.

Now we know that the nitrogen of the urine is derivable from the metamorphosis of the nitrogenous ingesta within the system. It is true the food taken was every day the same throughout the experiment under consideration, but it does not follow that the rate of metamorphosis was every day similarly identical. Doubtless, like other processes of life, it is influenced by various internal conditions. We know also, as the result of observation in the case of starvation, that notwithstanding an absence of ingoing nitrogen an elimination of this element still continues, and that the nitrogen eliminated is drawn from the nitrogenous principles of the body, belonging alike to the solids and fluids. There is a *general* waste or loss occurring, and the only difference noticeable is that the loss goes on with different degrees of rapidity in the different parts of the system. In the muscles it certainly occurs somewhat more rapidly than elsewhere, but this is all. With these considerations before us, it appears to me that we are taking an unjustifiably narrow view in looking only to the muscles to account for the variation in question in the voided nitrogen. Exercise cannot fail to influence the processes going on in the system generally, as well as in the muscles, and in accounting for the results observed, instead of limiting ourselves, with Dr. Parkes, to the assertion that "we can only express the facts by saying that a muscle during action appropriates more nitrogen than it gives off, and during rest gives off more than it appropriates," I think what we ought rather to say is, that during exercise the *system* appropriates more nitrogen than it gives off, and during rest gives off more than it appropriates.

Voit, however, disputes the fact of exercise producing *any* influence over the elimination of nitrogen, and has taken exception to some of Dr. Parkes's experiments, on the ground, more particularly, that the daily ingress of nitrogen could not be kept sufficiently stable. This has elicited from Dr. Parkes a further series, the results of which are recorded in the Proceedings of the Royal Society for March, 1871. In these it appears that there was no change induced, either at the time or afterwards, by a moderate amount of additional exercise, under a mixed regulated diet; but, under a non-nitrogenous diet the increase in the nitrogen on the following day to the performance of a hard day's march was exceedingly striking. The non-nitrogenous diet was continued through five successive days. During the first three it was associated with the ordinary work of a soldier; on the fourth, with a march of thirty-two miles carrying a weight of forty-three pounds and a half; and on the fifth with rest. As an ordinary result of abstinence from nitrogenous food, the eliminated urinary nitrogen underwent a steady decrease during the first four days; on the fifth, however, it showed a marked ascent, the amount being then in considerable excess of that discharged on the first.

THE USES OF THE UVULA.

BY SIR G. DUNCAN GIBB, BART., M.D., LL.D.

IT may be taken as an axiom in the animal economy generally, that nothing has been created without a purpose and a use, although to our comprehension the use of many things may seem inexplicable. Nevertheless, when carefully examined and studied, bodies apparently of trivial importance, and seemingly existing for symmetry or harmonious unity, in the mesial line especially, are invested with a good deal of interest and really practical importance. Such a one is the uvula.

Of this body we hear but little, unless it becomes the source of trouble through elongation or its participation in some neighbouring disease—such as inflammation and swelling. It was probably better known and appreciated as a part of some importance amongst the ancient Greeks and Romans, from the terribly severe measures resorted to when it became the object of medical interference.

In all anatomical and physiological works the uvula comes in for a very small share of consideration, a few lines sufficing to describe it as a small rounded process or conical prolongation of the mucous membrane, forming a sort of cul-de-sac hanging perpendicularly from the middle of the inferior border of the soft palate, the velum pendulum palati, or velum molle. Perhaps more could not be said; but when we look into its *composition*, its *situation*, its *relations* as a muscular body to neighbouring muscles of high importance, and its true functional *uses*—which have never yet been wholly understood,—we do not find it meets with the consideration it really merits.

We will first speak of its *composition*. Notwithstanding that it is spoken of by many persons and writers as simply a prolongation of the mucous membrane, it is a true muscular body, covered with the former, but having the remarkable peculiarity, in a considerable number of individuals, of possessing this membrane elongated at its terminal end, resembling somewhat the finger of a glove, partly off and partly on the finger of the hand to which it belongs. This becomes an abnormal condition which influences the voice, especially in singing, as much so as if it were a disease; yet it cannot be denied that sometimes, though very rarely, the true muscular end becomes elongated. The muscle which forms the substance of the uvula is known to anatomists as the levator or azygos uvulæ, and consists most generally of two distinct muscles (notwithstanding its name) placed side by side in the middle line of the soft palate, although sometimes it is single. The latter is exceptional, for a distinct muscle of a fusiform fleshy character in some persons, in others a narrow slip of muscular fibres, is found to exist very distinctly on both sides, and to become blended at the terminal point of union at the tip of the uvula. Whether single or double, the origin is invariably from the spine in the centre of the posterior border of the hard palate and aponeurosis of the tensor palati; the fibres descend vertically close to its fellow in the median line, upon the nasal surface of the velum, and are inserted into the cellular tissue at the terminal end of the uvula. Its origin from the spine of the palate bones, or rather, as it is described by some anatomists, from the palatine aponeurosis, or *fibrous continuation of the septum narium*, necessarily invests it with considerable strength and powers of resistance, as shall presently be shown. It

is, however, the most superficial of the palate muscles, situated on the posterior or nasal surface of the soft palate, and, with some mucous glands and cellular tissue, forms the uvula.

Such is a description of the uvula, which in structure is clearly muscular, separated in the origin of its two muscles above by a slight interval, which would give them together the shape of a long spear. In stout fleshy persons I have frequently found distinct adipose tissue, in more or less abundance, situated at the tip or terminal end. When the uvula is bifid, the insertion of the muscle is separate and distinct in each terminal point.

The *situation* of the uvula perpendicularly in the centre of the soft palate corresponds with the depression at the root of the tongue known as the foramen cæcum or frænum, between the valleculæ, its point being in front of the epiglottis. It is not in contact, but still exceedingly close to the tongue. Yet in many persons in whom the soft palate is more depending than is natural the uvula touches the tongue; and if its terminal end becomes elongated, it hangs into the larynx, or so tickles the epiglottis as to cause it to become more or less pendent, when it then rests upon its lingual surface. There is a difference in the relative position of the soft palate and uvula in breathing by the mouth and the nose. When breathing by the latter, with the mouth shut, the situation of the uvula is pretty much as has been described; but when by the mouth, the soft palate is a little more elevated, and the tip of the uvula hangs perpendicularly over the centre of the opening of the larynx. This has been determined very accurately by a series of examinations and experiments upon various healthy persons; and, as I shall presently show, *vocalisation exerts a decided influence upon the position of both the soft palate and uvula.*

In its *relations* the uvula is connected anteriorly with the tendinous expansion of the levatores palati which spread out in the structure of the soft palate as far as the middle line, and posteriorly with the mucous membrane covering that part of the soft palate. It is also indirectly related to the tensor palati through its expansion in the tendinous aponeurosis, which is partly inserted in the raphe in the medial line, in front of the levator palati. It is also contiguous to the palato-pharyngeus, although not directly in relation with it.

Uses of the uvula.—According to the action of the muscle it is an elevator, and consequently shortens the uvula, and nothing more is said of it by anatomical writers. It is, however, a sentinel to the fauces, especially in the act of deglutition, for the moment that any substance comes into contact with it, whether saliva, fluid, or alimentary bolus, it excites to action all the surrounding muscles, until it is got rid of and the passage clear. But it possesses a function of certainly not less importance in *holding the soft palate tense and firm in the mesial line against the wall of the pharynx during the act of deglutition itself*, and thus prevents the passage upwards of any fluid or solid substance into the posterior nares. This might be considered a mere assumption were it not supported by the most convincing proof, as there is no opportunity of confirming its truth by inspection through the mouth. But it is otherwise when seen through the nose, and it was determined in the following manner:—A female, aged thirty-six, lost the nasal bones, right turbinated bones and vomer, with part of the cartilaginous septum of the nose, through disease, leaving an external opening which she generally concealed with cotton wool and lint; the nose itself was otherwise natural. Through this opening a large cavity was exposed, which permitted of a perfectly good view of the action of the soft palate from its nasal aspect during the act of deglutition, with or without food. Under either circumstance a double arch was seen, in the form of two convex swellings, held in a state of firm tension by the action of the uvula pressing down the centre of the soft palate, with its end resting flat against the wall of the pharynx. Here was the motor uvulæ muscle, situated superficially, like a distinct band tied round the soft palate in its most important resisting part, to prevent the possibility of food passing upwards; and in this it was supported co-ordinately by all the neighbouring muscles concerned in the act of deglutition. This phenomenon was perhaps more perfectly visible during the swallowing of fluids than solids, yet it was always distinct with the latter, or when no food was in the mouth, only in the last the prominence of the two arched swellings was not quite so great.

A number of observations were made, and experiments performed from time to time, yet they all tended to the same results, thus proving incontestably what was not hitherto known, that the uvula acted as a *point d'appui* in holding the soft palate tense in the middle line against the pharynx during the act of deglutition, at the same time that it acted as a compressor of the soft palate itself. Its tension ceased the moment that the constrictors of the pharynx had fully exerted their influence over the fluids and solids swallowed. The strong attachment of the muscle in its origin from the palatine aponeurosis, or fibrous continuation of the septum narium, will readily explain the power the muscle possesses in compressing the soft palate, and meeting sometimes very considerable resistance in the passage of the alimentary bolus, or, may be, a large gulp of liquid. This compressing power would be incapable of exertion were not the terminal end of the uvula strongly fixed against the wall of the pharynx.

Whilst the uvula thus has its special uses in the act of deglutition, it exerts a not less decisive influence upon the voice when uttered in a very loud tone, or in singing the higher registers, whether contralto or soprano in females, and tenor or barytone in males; *then* is its character as a *levator* or shortener clearly exerted, a use indeed that any one can readily demonstrate in his own person who has sufficient command over the muscles of his throat to allow him to see it. If this power of shortening or elevation is impaired by the removal of the whole or greater part of the free exposed *muscular* end of the uvula, then are the singing powers so seriously damaged that instances are known where a professional life has been ruined in consequence. Indeed, every true singer is instinctively afraid of any measure being performed upon the uvula that will damage the true elevating muscular power which it is so well known to possess over the soft palate in association with the levator palati muscles.

In uttering the higher singing notes with the mouth open, not only is the uvula seen to be drawn upwards, so as to become almost invisible, but the soft palate is drawn backwards and upwards, diminishing the space between its posterior border and the wall of the pharynx, so that nothing can occur to interfere with the passage of the expired air in its readiest and most conveniently harmonious manner through the mouth. The movements of the uvula are exceedingly rapid, and vary with the continuous or quavering character of the singing notes; in the shakes of the voice it is seen to be undergoing a series of short *ups and downs*, and at every inspiration in singing it descends, and as rapidly ascends, and keeps up until the note, prolonged or otherwise, is finished. These observations have been confirmed by me over and over again upon some of the first vocalists of the day. In females who possess the very highest singing compass, the uvula and soft palate are small relatively, and so exquisite is the power over the uvular muscles that the very point can scarcely be recognised when the highest scale is reached.

On the other hand, my observations upon the position of the epiglottis have shown that, if the expired air in vocalisation is directed *behind* instead of in *front* of the soft palate and uvula, through pendency of the cartilage, thus diverting the course of the current of air, harmony, power, compass, and range of voice in singing are damaged most seriously. The elevating motor power of the uvula scarcely or not at all exerts itself, because the proper and natural respiratory influence is not exerted.

The uvula, therefore, besides the important functions it possesses in the act of deglutition, has also its special uses in regulating the voice, and this by no means in an unimportant manner. That it does do this latter in an eminent degree is readily proved by what has been related, and confirmed incontestably—as, indeed, every singer well knows and fears—by the damage to singing powers when its free muscular end has been taken away. And here a few words may be said upon *elongation of the uvula*. As has been already stated, the true muscular end of the uvula very rarely indeed becomes elongated, but the terminal membranous end, containing mucous glands, and occasionally adipose tissue, does so frequently, giving rise to a set of phenomena which need not be described here. They are wholly removed by the operation of snipping off the superfluous

membranous end, and no inconvenience has followed in my experience of between four and five hundred instances. It is otherwise if a portion of the muscular end of the uvula is taken away; for if a single arch now exists as a consequence from one pillar of the fauces to that of the opposite side, instead of the heretofore double arch, then is the singing voice altered, and in deglutition occasionally fluids, and even solids, get up into the posterior nares, thus proving the correctness of the views already enunciated, that one of the uses of the uvula is to hold the soft palate tense against the wall of the pharynx during the act of deglutition.

One of the effects of an elongated uvula, whether composed of membrane or muscle, is an unnatural drooping of the soft palate, which hangs upon the tongue, the power of the tensor and levator palati muscles being somewhat impaired. The constant dragging of the end of the uvula downwards in deglutition, which is continually occurring involuntarily, independently of the act of eating, is one at least of the causes of this; and that it is so is proved by the removal of the loose, flabby, membranous end, which is followed by the elevation again of the soft palate. The removal of the whole free muscular end of the uvula will not, in itself, give rise to a nasal twang in a speaking voice, however mischievous it may be to the singing voice. If a nasal twang is noticed coincidently with such a removal, it will be found to depend upon some other cause altogether.

The speaking voice is modulated by the soft palate and uvula, and the motor power of the latter is unquestionably exerted in pronouncing the letters k, q, and x, with their associations, more especially the gutturals of various languages.

The uses of the uvula may be summed up as follows:—

1. It acts as a sentinel to the fauces in exciting the act of deglutition when anything has to be swallowed.

2. It compresses the soft palate, and holds its posterior free border firmly against the wall of the pharynx in deglutition, so that nothing can pass upwards.

3. It modifies speech in the production of loud declamation and the guttural forms of language, by lessening or diminishing the pharyngo-nasal passage, when it acts as an elevator.

4. Its elevating power is increased to the most extreme degree in the highest ranges of the singing voice, and is very moderately exerted in the lower ranges.

5. Therefore, in its uses, deglutition and vocalisation are the functions that are intimately associated with the uvula, and both become impaired more or less if it is destroyed, wholly removed, or seriously injured.

Bryanston-street, Portman-square, Jan. 1872.

CONIUM IN THE TREATMENT OF ACUTE MANIA.

BY J. CRICHTON BROWNE, M.D., F.R.S.E.,
MEDICAL DIRECTOR, WEST RIDING ASYLUM.

(*Continued from page* 144.)

FROM what has been now said it seems to result that mental excitement is assuredly the special indication for the use of sedative remedies. To this, however, it must be added that there are several varieties of mental excitement and several varieties of sedatives, and that it is in the nice adaptation of the latter to the former that successful treatment consists. If a particular sedative has been tried in a particular case of mental excitement and found inefficacious, that is a reason, not for casting discredit upon the whole class to which it belongs, but for doubting the wisdom of its selection. If a particular sedative of much potency has been resorted to in all cases of excitement without distinction, and has signally failed to do good in a majority of them, then the proper conclusion would seem to be, not that sedatives are useless, but that their indiscriminate application is foolish.

In a number of investigations having for their object the discovery of some principles by which the choice of sedatives in cases of excitement might be guided, I have been led to the conclusion that conium—a very old remedy with a good modern reputation—is the sedative, alone or in combination, which above all others is best suited for the treatment of that variety of excitement which we call acute mania. A remark of Dr. Harley's, in his admirable work "On the Old Vegetable Neurotics," first suggested to me that mania might be favourably influenced by that drug. As, however, my earliest experiments with it were, from causes which shall be hereafter explained, almost barren of results, I yielded to the conviction that Dr. Harley was mistaken, and that conium could not exert any beneficial influence upon the higher ideational nervous centres. Remembering that the mind of Socrates remained unclouded to the last—he actually recollected his debt to the doctor when *in articulo mortis*,—and that Dr. Harley's observation pointed only to the influence of conium on the motor centres, I conceived that the cerebral hemispheres were beyond its reach; that it might act very well in chorea, paralysis agitans, and convulsions, but was impotent in mental aberration. Circumstances, however, having led me to review that conclusion, and to investigate the properties of conium with a more thorough and searching procedure than that formerly employed, I soon came to perceive that it is most beneficial in mania, and that it is so chiefly by virtue of that action on the motor centres which Dr. Harley, Dr. Bennett, and others have demonstrated. It will be at once recognised that motor excitement is an important and constant element in mania. Exuberant locomotor and vocal spontaneity are often amongst its earliest harbingers. The novice in that disease hurries from place to place, trembles or chatters incessantly long before the movements of the limbs or tongue can be connected with any morbid sensation or emotion. A vague impulse to activity with an overflow of vigour, dependent upon irritation of the motor centres, is all that can be recognised at this stage. But the rapid movements in which this impulse and overflow are displayed tend, by their nature and physiological concomitants, to excite the cerebral hemispheres and involve the mental functions. The mild delirium described by Coventry Patmore—the most domesticated although certainly not the tamest of poets—as the result of the nineteenth century waltz, is an example of the facility with which quick movements may pass into quickened thoughts and feelings—a process of which innumerable illustrations are contained in the history of the ecstatic worships of antiquity, of tarantulism, and of the convulsionnaires in more recent times. Thus the restlessness and loquacity of incipient mania favour emotional agitation, which again stimulates to muscular exercise, and so on through various stages of mutual exasperation until furious madness is reached. After this climax is attained, and indeed throughout the whole progress of acute mania, the muscular element plays an important part. If we turn to the best descriptions of that disease, we shall remark that they all dwell on the extraordinary mobility which characterises it; that they enumerate commotions of the muscular apparatus, such as tremors or jactitations of the limbs, tossings in bed, wild gestures, distortions of the countenance, violent movements, cries, and vociferations, as among its most invariable symptoms. Some of them, indeed, point to even more special affections of the motor organs. Prichard says:—"Notwithstanding this constant exertion of mind and body, the muscular strength of the patient seems daily to increase; he is able to break the strongest bonds, and even chains; his limbs seem to acquire a remarkable nimbleness and pliability, and a singular aptitude of performing movements and actions which appear almost supernatural." Griesinger, while denying the development of any extraordinary strength in mania, adds that "it is correct and very remarkable that the patients can continue, often for a very long time, to make use of their muscular power, and to an extent which far surpasses their capability during health." In several cases in which death has ensued from exhaustion after, or rather during, mania, I have observed that the corpora striata have participated in that appearance of vinous staining, or purple blotchy discoloration, which is occasionally observed in the cortical layers of the hemispheres and adjoining medullary substance under such circumstances.

Seeing, then, that the motor factor forms so large a proportion of the integer of mania, it is obvious that if it can be subtracted an important step is made towards the complete resolution of the disorder. If muscular tranquillity can

be ensured in mania; there is good ground for hoping that mental calmness will speedily follow. If the limbs and tongue can be laid at rest, a predisposition to sleep is created. In health we all know that closed eyelids, the recumbent posture, general stillness, and a sense of weariness are most conducive to the approach of the "sweet restorer"; and in disease the same holds good to a great extent. In mania, if bodily quiescence is once secured, the chances are that sleep and improvement are not far distant. Now conium gives us the power of ensuring this bodily quiescence that is so eminently desirable. It soothes and refreshes the irritated or exhausted centres of motor activity. It exerts a powerful control over the corpora striata and whole motor tract to the periphery of the centrifugal nerves, allays restlessness and agitation of the muscular system, and thus clears the way for sleep, which is only waiting an opportunity to assert itself. Dr. Harley's investigations establish beyond cavil that the earliest physiological effects of conium are—sensations of weight and weariness in the legs, dimness of vision from impairment of power in the muscles of the eyeball, giddiness, general languor and drooping of the eyelids; and that its later effects, when given in full doses, include strabismus, double vision, dilatation of pupils, prostration of strength, and complete muscular repose merging into paralysis, without any failure of memory, confusion of mind, or emotional disturbance. They also prove satisfactorily that, in convulsions and spasmodic diseases, in chorea, paralysis agitans, cramps, and indeed in all morbid conditions in which there is much excitement of the motor centres, much benefit may be derived from a judicious use of conium. Now these physiological actions of conium, and these therapeutical uses, alike indicate that it is upon the motor tract that its influence is first exerted, and that it is from this tract that it is propagated in certain directions. The rapidity with which the effects of conium are diffused—one might almost say flashed—throughout the system, together with the fact that they are often accompanied by a deep-seated aching pain in the forehead, suggests that of the motor centres the corpora striata are those principally affected. But, wherever the affection of the motor centres may be inaugurated, there can be no question that, from first to last, that affection is of a tranquillising character. Conium soothes and mollifies the motor centres especially when they are irritated or excited, and does not, as has been alleged, disastrously depress muscular activity. The recovery from its effects is as the waking from invigorating slumber. It is as if a tonic had braced the active powers. No weariness, weakness, nor oppression remains. And hence its great value in mania. It produces, if we may so say, a salubrious paralysis, which slackens mental speed, invokes restorative sleep, and leaves behind it an enduring impression upon any tendencies which may exist to motorial extravagance, without entailing exhaustion or debility.

The virtues ascribed to conium in the treatment of mania have been abundantly shown forth in the trials of it which I have made in the West Riding Asylum. As I before announced, it was employed here in the first instance without affording any encouraging results. That was in 1869; and, as I now know, the experiments then made with it were absolutely nugatory because the preparations used were probably inert and the doses administered certainly insufficient. In the beginning of last year, however, experiments with it were again commenced, and the results of these only require to be stated to secure the recognition of their importance. Since the 23rd of February, when these experiments were begun, up to November 1st (beyond which I have thought that it would not be fair, in the meantime, to carry my examination of the observations made), twenty-eight cases of mania in all—twenty-five of acute mania and three of acute delirious mania—have been treated from the first with succus conii, the only preparation which can be employed with confidence. Of the twenty-five cases of acute mania, twenty-three have, up to the present date (Jan. 1st, 1872), been discharged recovered: one (a woman, Elizabeth N——, admitted July 31st) has suffered a relapse; and one (a man, Thos. R——, admitted July 17th—second attack) is still maniacal, but exhibits decided signs of improvement. Of the three cases of acute delirious mania, one has been discharged recovered; one (Hannah E——, admitted July 13th) is still under treatment, but is improving steadily; and one (Mary Emma A——, admitted on April 24th) terminated in death. In the case, however, in which there was a fatal issue, it ought to be mentioned that at the time of admission there were large bed-sores over the sacrum, ulceration of the lips and mouth, a crop of boils over the body, and a state of profound exhaustion from refusal of food. These figures must, I think, be regarded as eminently satisfactory, and as affording strong grounds for believing that the dangers which ordinarily beset the treatment of mania—namely, death from exhaustion, consecutive dementia, indefinite protraction, and relapses—are in great measure obviated by the conium treatment. To give these figures just weight, it is necessary to add that the cases of acute mania in which the conium treatment was tried were not specially selected, but that all instances of that disease admitted after the date mentioned were without exception submitted to it.

(To be concluded.)

CASE OF CARIES OF THE FRONTAL BONE, AND OPERATION FOR ITS REMOVAL.

BY G. A. McCALLUM, M.D. DUNNVILLE, ONT.

SYPHILITIC inflammation of the cranial bones resulting in caries or necrosis is undoubtedly a most severe form of tertiary syphilis. A case recently occurred in my own practice which presented some interesting features, and the treatment of which has thus far been successful.

Mrs. S——, aged forty-five, whose husband is a sailor in one of the large steamers on our lakes, was unfortunately infected by him with syphilis. The initial attack was apparently cured. Two or three years after this she was treated in Buffalo by a surgeon there for osteocopic pains in the legs. She was salivated and kept under the influence of mercury for some time. The pains disappeared, and the woman thought that she was cured. Three years later an inflamed tubercular swelling appeared upon her forehead, which, in time, opened and discharged; in fact, caries of the frontal bone had completely developed itself, evidently the result of the infection with syphilis, assisted, probably, by the amount of mercury she had taken. She was not aware of the cause of her symptoms, as her surgeons had kept it secret from her.

On the 7th November, 1870, she presented herself at my surgery, a wan, pallid creature, weighing not more than 90 lb., and walking with the aid of a cane, owing to caries of one of the tibiæ. I examined the head, and found two sinuses communicating with diseased bone, apparently quite spongy, and from which was constantly oozing a profuse discharge of pus. Her face was drawn from slight paralysis, the result evidently of ulceration of the brain from contact with the dead bone. She was in very poor health, passing almost sleepless nights, no appetite, memory impaired, &c. I told her that nothing would avail in the way of treatment except an operation for the removal of the diseased bone, explaining, at the same time, to her and her friends, the danger of the operation, and that she needed considerable preparation before undertaking it, if she concluded to submit. I gave her a wash of liquor sodæ chlorinatæ, ordered good diet, plenty of fresh air, and an opiate at night. I asked her to consult a medical friend of mine, who, after examining her, concurred in my opinion as to the necessity of the operation, agreeing to assist me as soon as she was in a better state of health. At the end of a month she had so far recovered in health and spirits that we resolved to make the venture, although we were extremely doubtful of her surviving the operation.

On the 6th January, 1871, we met at her residence to perform the operation, when she was placed under the influence of chloroform. A crucial incision was then made through the previously shaven scalp, and the flaps reflected so as to expose the frontal bone, which was found to be one entire mass of disease, so spongy that the trephine passed through both tables; the brain and its membranes were also found to be involved, but to what extent was not known until the diseased bone had been removed, when a cavity presented itself capable of holding at least an ounce of pus, which was given free exit upon the removal of the bone. The ulceration had involved not only the anterior portions

of both anterior lobes of the brain, but also the membranes covering them were completely destroyed. The operation necessarily occupied considerable time, as piece after piece was removed until a large portion of the frontal bone was taken away with the trephine, and the outer table and other portions separated by means of the gouge. The ulcerated brain, which we now hoped would cicatrise, was freely washed, together with the rest of the wound, with a weak solution of carbolic acid. Although the shock to the system was very great, and it was feared she would sink on several occasions, yet she rallied, and after reaction cold carbolised water dressing was constantly applied to the head, with aconite and bromide of potassium to control inflammatory symptoms, and an occasional opiate to procure sleep.

Without minutely following the case further, I may say that the parts showed a disposition to heal kindly; the discharge, after a time, became less in quantity and fetor, and our most sanguine anticipations in reference to the ulcerated brain after the removal of what had become a foreign body were apparently realised. Her health improved rapidly, so that in June she was able to undertake a journey of three hundred miles.

September 1st.—The wound is nearly closed; one place still remains open over a piece of exposed and loose bone, which I purpose removing if it does not become detached of its own accord. The discharge is almost *nil*, she sleeps well, eats well, and is quite a different person. It would be interesting to know in what state the brain now is, and how it has cicatrised, if at all, after such a lengthened period of ulceration.

November, 1871.

INTESTINAL WORMS.

BY WILLIAM DATE, M.R.C.S.

(*Concluded from page* 146.)

THE natural history of Ascaris lumbricoides, although pretty well understood, has not been placed so entirely beyond all doubt as that of tapeworm, since it has not been actually traced through all the stages of its development. Some of its changes of condition have been observed; but one link in the chain is still wanting. The sexes are separate (unlike tæniæ), the female being rather larger than the male. The ova are never matured in the human intestine. They leave their first habitat in large numbers, adhering to the fæces, and are wanderers upon the face of the earth for an indefinite period, until they find favourable conditions for the first change which they undergo, which consists of segmentation of the yelk and formation of the embryo. This may not take place for months after their expulsion. The embryo is enclosed in a thick tough envelope, which resists wear and tear, and preserves its occupant during the vicissitudes to which it is exposed. So far all is clear enough; but the next stage is still doubtful. It is by no means certain whether they pass now into the human intestine and there develop into the mature animal, or whether they undergo a previous metamorphosis in the tissues of some other host. Judging from the analogy of tæniæ, we might expect the latter to be correct. It is possible, however, that they find an entrance floating in drinking-water or adhering to imperfectly cooked vegetables.* Any way, there is no difficulty in understanding the prevalence of this worm. Dr. Eschricht has calculated that the mature A. lumbricoides contains the almost incredible number of 64,000,000 of ova. Looking at the immense number of these which must be expelled, to find their way on to our fields and into our rivers—remembering the thick envelope in which they are enclosed and by which they are so efficiently protected—remembering the long time during which they may remain dormant, but ready to spring into active life the moment a favourable opportunity arrives—remembering their small size which shields them from observation,—taking all these things into consideration, we are driven to the disagreeable conclusion that the ingestion of these ova must be an exceedingly common occurrence, and that it is only the general absence of favourable conditions for their development which prevents them from being much more frequent guests of humanity than they actually are. Let them only find a collection of mucus or some other favourable nidus, and they will soon take up their abode and quietly spend there the remainder of their existence, or, at least, remain until they receive summary "notice to quit."

Tapeworms are more frequent in adults—most frequent in females. Round worms are more common in children than in grown-up people; and, as might be expected from the more delicate nervous organisation of the former, the attending symptoms are often of a more serious character. It has been the fashion of recent writers—for there is a fashion even in matters medical—to assert that worms, of themselves, never give rise to symptoms of any kind. This view, no doubt, is a reaction from the old notion which attributed to intestinal worms all sorts of extraordinary phenomena. The truth, as is so often the case, seems to lie between the two extremes. I have repeatedly seen cases in which the expulsion of the worm has been followed by a relief of urgent symptoms so immediate and so marked as to convince me that the worm itself was the cause of the mischief, and this without any evacuation of mucus or fæces sufficient to account for the change. On the other hand, it cannot be denied that worms may and often do exist in the intestinal canal, even of delicate children, without giving rise to any very special symptoms. It may be that reflex irritation is induced only in children of very excitable temperament, or in certain peculiar states either of the general nervous system or of the intestinal mucous membrane. Certainly the gravity of the symptoms does not appear to depend on the number of the worms, except in those rare cases where they have multiplied to such a degree as to cause obstruction of the bowel. In children we generally find some or all of the following symptoms: The appetite capricious. Pain of a gnawing or griping character; even where this is not complained of, deep pressure often reveals an unnatural degree of tenderness. There is often a tumid condition of the belly. The state of the bowels varies; commonly there is constipation alternating with attacks of diarrhœa, sometimes severe, a considerable quantity of slimy mucus being discharged, followed by great relief. In rare cases blood is passed. These worms are often expelled during the progress of enteric fever, and, according to my experience, the expulsion is often followed by a relief of the more urgent bowel symptoms.* The tongue is pale, flabby, indented by the teeth, and often has a peculiar shiny appearance. The pupils are generally dilated. Squinting sometimes occurs, and nervous twitchings, sometimes almost amounting to chorea. Even convulsions may supervene. The sleep is restless; the child grates its teeth, and often awakes suddenly with a startled expression and cries. Fever often runs high and assumes the remittent type, with great heat of skin. In short, the symptoms often resemble those of hydrocephalus. The cases under consideration may be distinguished from the latter by the more distinct remissions; by the previous history, showing the primary symptoms to be referable to derangement of the alimentary canal; by the less obstinate character of the constipation; and, finally, by the expulsion of the worm. Other cases may simulate tubercular disease; but here, again, a careful consideration of the symptoms will clear up the diagnosis. Thermometric observations are particularly valuable. In tubercular disease, the temperature, although it may vary, is always above the natural standard; in these cases the temperature is either normal or the elevation is only temporary. The above symptoms are not to be observed in all cases, and are often very obscure. When many or most of them exist, without any other apparent cause, we shall be justified in administering an anthelmintic. The appearance of a worm will set all doubts at rest. Dr. W. H. Ransome† recommends a microscopic examination of the fæces for the ova. To those possessed of a microscope, with the necessary skill and time for its use, and a stomach strong enough to face the required manipulations, this, no doubt, is the most satisfactory method of diagnosis.

The best remedy for these cases is *santonine*. It stands *facile princeps*, and, if properly administered, may be said to be a specific. It may be given either in a single full

* There is some evidence in favour of this view. See "Science and Practice of Medicine" by Dr. Aitken.

* I have seen the long thread-worm expelled in like manner.

† A System of Medicine, by Dr. Reynolds, vol. iii., art. Intestinal Worms.

dose, or in repeated smaller doses. I prefer the latter method. A large dose is apt to produce disagreeable symptoms; such as irregular pulse, singing in the ears, vertigo, and nausea. There is sometimes partial suppression of urine, but this is always temporary. Sometimes all objects appear of a green colour. The urine is invariably of a cloudy orange appearance, changed by liquor potassæ to a bright-red. Dr. Sieveking has recorded a case in which severe urticaria twice followed the administration of a very small dose to a child four years old; and he refers to a case reported in the "Annales de Thérapeutique" for 1852, in which a child of the same age, "after taking three grains of santonine, experienced severe abdominal pains, vomiting, purging, great prostration, cold sweats, spasm of the extremities, and dilated pupils; but ultimately recovered." These cases are doubtless quite exceptional. Nevertheless it is better to avoid the risk by giving repeated smaller doses; which, indeed, are quite as effectual. Thus, for a child five years old, I should order three or four grains every night at bed-time. A slight tea of mutton-broth with very little bread may be allowed, but no food should be taken after this. The powder must be taken in dry sugar or honey, and no liquid swallowed immediately after. I have found it more efficacious when this caution is observed. It may be that the drug is not so readily absorbed by the stomach as when dissolved in liquid, but passes on into the bowel to exert all its effects upon the parasite. Before giving the santonine the bowels should be well cleared out by a brisk purge. Nothing is better for this purpose than the old mixture of salts-and-senna, as in the mistura sennæ co., which acts so efficiently on the small intestine. The powder should be taken every night for a fortnight; and, as it is not itself aperient, it may be necessary occasionally to repeat the dose of compound senna mixture. It is not sufficient, however, merely to dislodge the worms and pronounce the case cured. The morbid condition of the mucous membrane, which favours their development, still remains, and must be dealt with. It is probably a neglect of this precaution which occasions the numerous cases of relapse which one sees and hears of. To restore the tone of the intestine and prevent the reaccumulation of mucus, the treatment is the same as after tapeworm. At the same time we should endeavour to prevent the introduction of living embryos. If there is any suspicion about the drinking-water, it should be boiled and filtered. All vegetables, as well as meat, should be thoroughly cooked. Salads, therefore, are to be avoided. General hygienic measures are specially to be looked to.

The short thread-worm (Oxyuris vermicularis) inhabits the lower bowel. Its life history is not clearly determined. Except that embryonic formation takes place before the ova leave the intestine, the different metamorphoses probably differ but little from those of A. lumbricoides. Short thread-worms may exist in considerable numbers without their presence being marked by any very striking symptoms; but they generally excite a good deal of local irritation, and, by the intolerable itching which they occasion, they render the patient's life miserable. They are often most annoying in bed, or after particular articles of diet, such as onions, carrots, and some kinds of fruit. These might possibly act as prophylactics. In females they sometimes escape into the vagina, and cause troublesome leucorrhœa. They may always be detected in the stools. They often co-exist with the large round worm; hence the presence of the one should always lead to inquiries for the other. Beyond the local irritation which they occasion, and which is often annoying enough, thread-worms do not cause much harm. In children, however, they are often attended by a lax state of the rectum; and this, with the straining which they induce, sometimes results in prolapsus ani.

As oxyures infest the lower bowel, they are best reached by enemata. Of these, one of the simplest, and by no means the least efficacious, is a solution of common salt in infusion of quassia, in the proportion of two ounces to a pint, given every morning. Where this treatment fails in entirely dislodging them, they are probably resident high up in the colon. It is then advisable to continue the injections, and at the same time to administer by the mouth small doses of aloes, in combination with iron and quinine. The following forms a useful pill for adults:—Sulphate of iron, sulphate of quina, aloes pill with myrrh, compound galbanum pill, of each one grain: to be taken three times daily. For children, wine of aloes, with syrup of ginger, may be ordered. If this treatment be continued for a fortnight or three weeks, the patient will rarely be further troubled with the annoyance. As the life history of these creatures is probably analogous to that of A. lumbricoides, the same preventive measures may be adopted. In addition to these scrupulous cleanliness must be enjoined, in order to avoid the risk of self-infection by the ova lurking in the folds of skin near the anus.

I have thus gone through most of the *practical* bearings of this subject. I might, had space permitted, have selected from my note-book some interesting illustrative cases. It may be objected by some that a knowledge of the life history of entozoa does not assist in their expulsion; but the higher province of the physician is the prevention, rather than the cure, of disease; and, as a means to this end, a knowledge of the origin and growth of these creatures becomes of the highest practical importance: "ista quoque naturæ rerum contemplatio, quamvis non faciat medicum, aptiorem tamen medicinæ reddit."

Crewkerne, January, 1872.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GREAT NORTHERN HOSPITAL.

AXILLO-SUBCLAVIAN ANEURISM TREATED BY PRESSURE ON THE CARDIAC SIDE OF THE SAC; SLOUGHING OF THE INTEGUMENT AND DEEP TISSUES AROUND THE SAC; RECOVERY OF THE PATIENT; PARTIAL CURE OF THE ANEURISM.

(Under the care of Mr. GAY.)

THE following case, to which there is only one parallel (as regards treatment) in Mr. Poland's tables of subclavian aneurism, is of great interest, showing as it does the advantages and the dangers of long-continued pressure at the root of the neck.

The patient was a strong healthy man, aged forty-five. He had a tumour (presenting all the characteristics of an aneurism), about the size of a Tangier orange, at the root of the neck on the right side. The aneurism was partly covered by the clavicle. The anterior wall was very thin. Pressure on the subclavian artery caused arrest of the pulsation in the aneurism, and in the radial artery of that side. The patient had noticed the tumour for about six weeks only; but for six or eight months past he had been troubled with rheumatic pains and numbness in the right arm and shoulder.

After much consultation it was determined to try pressure on the cardiac side of the aneurism. This was commenced on the 14th of October, 1871, and was at first simply "digital," being maintained, without intermission, by relays of students and others, who all took a deep interest in the case. It was soon found advisable to substitute Mr. Cole's compress for the finger. This is a T-shaped instrument, provided with a soft pad, about the size of the end of the finger, at the bottom of the perpendicular limb, by which pressure is made on the artery. This perpendicular limb is jointed to the horizontal limb (on which the compressing hand rests), and is provided with delicate springs, so that the pressure can be adjusted to the necessities of the case with the utmost nicety.

In this way the pressure was maintained, with brief periods of intermission, for four days and nights. The pressure caused considerable suffering to the patient, numbness in the hand, and an aching pain along the course of the ulnar nerve, especially where it passes behind the inner condyle of the humerus. These symptoms were relieved by the use of morphia and chloral. When the pressure was taken off, the pulsations in the aneurism and radial artery

were nearly extinguished, and the bruit in the aneurism had almost subsided. It was intended to renew the pressure, but it was found that the scarf-skin was loosened, and the skin beneath it was moist and of a dusky colour. Erysipelas now set in, and began to spread in every direction, but most rapidly over the aneurismal sac and towards the shoulder. The constitutional symptoms became very grave; the temperature was subject to great variation, alternating between 96° and 102°; the tongue was dry, the pulse quick and weak, and the face dusky. Sloughing commenced, and ultimately invaded, not only the skin, but the deep tissues as well in the neighbourhood of the sac, involving the deep fascia, and destroying the anterior belly of the omo-hyoid muscle. From this part matter and sloughy tissue welled up, and exhibited movements corresponding with those both of the artery and chest. On the third day of these symptoms he was attacked with pneumonia of the right lung, which it was feared might be pyæmic. On the eighth day the symptoms abated, the wound began to granulate, and by the end of eight weeks it had cicatrised, and he was restored to tolerable health.

On examining the aneurism, it was found still to exist, but the sac was smaller and thicker, and appeared to have shifted somewhat towards the shoulder. On its distal side pulsation could be felt as of a large artery. Pressure on this vessel, as well as on the subclavian on the cardiac side, stopped the current through the sac and through the radial, and altered the character of the bruit. The force of the current through the sac and down the radial was considerably lessened.

It was observed that during the time the pressure was maintained, and for several weeks afterwards, the finger-nails on that side ceased to grow, and that during recovery the back of the wrist and lower end of the forearm became covered with hair. The superficial veins have been constantly much more filled than those of the opposite limb.

LONDON HOSPITAL.

WOUND OF KNEE-JOINT; PERFECT RECOVERY WITHOUT SUPPURATION UNDER ANTISEPTIC DRESSING; PAINLESS DISTENSION OF THE JOINT WITH SOLUTION OF CARBOLIC ACID.

(Under the care of Mr. COUPER.)

THE following remarkable case is, we think, calculated to impress surgeons with the soundness of some, at least, of the doctrines promulgated by Professor Lister. In his address delivered last year at Plymouth, the Professor said: "The freedom with which joints may be opened in an antiseptic atmosphere, followed up with antiseptic dressing, is among the most striking and valuable circumstances of this treatment." What follows seems, as far as a solitary case can do so, to bear out the truth of this statement, and to present an example which is well worthy the consideration of surgeons, be they followers of Pasteur or Pouchet. We should be particularly glad to give insertion to parallel cases, whether treated antiseptically or otherwise.

On the 17th of October, J. S——, aged seventeen, while chasing a lad who carried in his hand the iron of a carpenter's plane, received a wound about an inch and a half long close to and parallel with the outer border of the left patella. He reached the hospital about half an hour after the accident. Mr. Curling, the house-surgeon, found that the sharp angle of the instrument had entered the joint, making an aperture which, although less extensive than the skin wound, yet easily admitted the tip of the (previously carbolised) forefinger far enough for him to feel the articular surface of the patella. Having ascertained that no foreign matter was lodged in the joint, he injected as much of the saturated watery solution of carbolic acid (one part of acid to nineteen of water) as the joint would hold. A large metal syringe, provided with a tapered bone nozzle, was employed for this purpose. The nozzle was introduced so as to plug the aperture in the joint completely. When the piston was then forced down the loose synovial bag underneath the tendon of insertion of the quadriceps muscle was fully distended. There was thus no doubt that the solution was brought in contact with the entire surface of the articulation. Before the syringe was used the skin wound was closed by a continuous suture of carbolised gut, with the exception of a portion sufficient for the nozzle to enter, in which the stitches were left unfastened. By this means the skin was plugged round the nozzle, and the solution retained for a minute or two. The latter was then allowed to escape, and the remaining stitches were secured. As all bleeding had ceased spontaneously, it was deemed unnecessary to provide a drain for imprisoned fluid; the wound was therefore closed from end to end. The knee was then enveloped in about sixteen layers of carbolised muslin, extending some inches above and below the wound. A small piece of green silk protective was interposed between the wound and the gauze to prevent irritation of the raw surface by direct contact of the carbolic acid. Finally, the limb was bound to a straight posterior splint to keep the knee at rest.

On the following day the lad was free from pain, even when the knee was lightly pressed. He had slept and eaten as well as usual. On removing the dressing under carbolic spray (1 part of acid to 99 parts of water), the joint was found very slightly puffy, but there was no fluctuation which the fingers could appreciate. When questioned as to the effect of the injection, he replied that the knee "felt hot and burning for about ten minutes after, but had ever since been quite comfortable." He treated it as a light matter, and was positive that no vestige of discomfort remained fifteen minutes after the injection. Six hours after it the temperature of the axilla was 100·5°. Eighteen hours after it had reached its maximum, 101°. Thenceforward it steadily declined, and was normal on the evening of the third day.

On the 19th, Mr. Couper again removed the dressing, not because a change was needed, but in order to satisfy himself as to the condition of the knee. The wound and the dressing were perfectly dry. They were in the same state when re-examined on the 21st. There was no redness at the wound; its lips had adhered. As the gut stitches caused no irritation, they were not disturbed. On the 28th they formed, with some dried serum, a thin brown scab, adherent to the wound. A few days later (November 1st) this dropped off, leaving a perfect scar. As a precaution the splint was not removed until November 1st. The knee could then be flexed without pain. The lad was kept under observation until November 16th, when he was discharged with perfect motion in the knee. During the last week of this time no trace of swelling remained, and he was up all day, and occasionally out of doors.

CHARING-CROSS HOSPITAL.

FRACTURE OF THE ZYGOMA.

(Under the care of Mr. BELLAMY.)

FRACTURE of the zygoma alone is of very rare occurrence, and the following case seems worthy of being recorded.

A. B——, aged forty, a man of unhealthy, hydrocephalic aspect, applied at the hospital in January, 1872, with a severe bruise (the result of a blow with the fist) of the left side of the face, inability to open the jaw beyond a certain distance, and with what he described as a tooth sticking into his cheek. He said he could feel nothing on the left side of his cheek and gum, and that it was "all cold like." Examination evidently showed fracture of the zygoma, and most probably fracture of the zygomatic process of the temporal bone, with disarticulation of it from the malar, the dislocated end being forced down towards the cavity of the mouth, having apparently the buccinator and buccal mucous membrane only between its rough extremity and the finger.

An attempt was made at reduction by passing the finger into the buccal cavity, and pushing the end of the bone upwards and inwards; but the pain was excessive. Moreover, even when something like approximation was attained, directly the masseter was put into action, the fragment assumed its former position. The nervous symptoms seem to point to pressure and implication of the middle and lower division of the fifth and its inosculations. He appeared to be, moreover, unable to inflate the side of the cheek corresponding to the accident, there being appa-

rently pressure upon the buccal nerve of the lower division of the fifth. There appeared very slight deformity.

On his next visit (January 5th) there was less pain, and he could open the jaw slightly, the other symptoms remaining much the same.

HOMERTON SMALL-POX ASYLUM.

HÆMORRHAGIC SMALL-POX ASSOCIATED WITH TETANUS.

(Under the care of Dr. GAYTON.)

THE following case presents features of an unusual character, both as regards the tetanoid symptoms and the amount and character of the eruption. It reads almost like a case of cerebro-spinal meningitis, and had it occurred at Dublin in 1866, instead of at London in 1872, it would in all probability have been so designated.

C. O——, aged seventeen, an errand-boy, was admitted on the evening of January 6th. The patient was quite well until the 3rd January, when he complained of shivering and headache. On admission, there were a few variolous papules on the face, trunk, and extremities, of a dark hæmorrhagic character, with numerous dark-purple spots on various parts of the body. He was completely unconscious; the mouth widely open; the face distorted; and the pupils dilated, the left more than the right. He was constantly shouting out, but no answer could be obtained to any question. He lay upon his left side with his legs drawn up; and when placed on his back he rested upon the occiput and the heels, the body representing a complete arch. Fluid introduced into the mouth was rejected through the nostrils. Pulse 120; lungs clear. Pressure upon the neck by pinching produced no effect. Swallowing being impossible, enemata of beef-tea &c. were given; and small doses of chloral hydrate produced slight relaxation of the muscular contraction, but otherwise did not appear to do any good. The patient remained in this condition until the afternoon of Jan. 8th, when he died.

Post-mortem examination. — On removing the calvaria, considerable difficulty was experienced owing to the firm adhesion of the dura mater. The brain was deeply congested over its whole surface, and appeared softer than natural. No fluid was found in the ventricles. On the under surface of the pons Varolii, extending along the under surface of the medulla oblongata (where it abruptly ended), was a thickish layer of concrete pus. On the posterior surface of the medulla oblongata there was a similar layer of pus, which appeared to end at the junction of the medulla oblongata with the cord, the superior two inches of which were free from exudation; but, with this exception, the posterior surface of the cord throughout its entire length was covered with an exudation like that already described. The cauda equina was infiltrated with fluid pus. The anterior surface of the cord was quite free from exudation; the cord itself was considerably congested. On examination by the microscope, numerous cells were seen; these cells were full of granules, which disappeared on the addition of acetic acid. No change was observed in the nerve-cells.

ST. BARTHOLOMEW'S HOSPITAL, CHATHAM.

DIFFUSED POPLITEAL ANEURISM (LEFT); AMPUTATION OF THIGH; SUBSEQUENT FEMORAL ANEURISM OF RIGHT THIGH; LIGATURE OF FEMORAL ARTERY; RECOVERY.

(Under the care of Mr. A. W. NANKIVELL.)

E. R——, a labourer, aged thirty-three, admitted July 5th, 1871, with a large popliteal aneurism of the left leg. The knee on the affected side measured two inches more than the sound one. Carte's tourniquet was applied several times daily, but the patient was unable to bear the pressure for more than half an hour at any one time. On the eighth day after his admission he complained of severe pain in the calf of the leg and foot, and there was some œdema of the limb. The pain in the limb continued to increase, the œdema of the leg got gradually more marked, and the aneurismal sac became decidedly tender. No pulsation could be detected in the tibial arteries. On the 27th of July the limb became distinctly gangrenous, and it was determined to amputate the thigh in the lower third above the aneurism. This was accomplished by means of antero-posterior flaps.

On examining the limb after removal, it was found that the sac had ruptured between the heads of the gastrocnemius, the whole of the calf being infiltrated with blood. The sac of the aneurism extended from the upper boundaries of the popliteal space to about two inches below the bifurcation of the artery. After the operation the man made a good recovery, and was discharged cured on Oct. 11th, 1871.

On Nov. 22nd, 1871, the patient was readmitted, suffering from a femoral aneurism of the right thigh. The aneurism was fusiform in shape, and occupied the whole of Hunter's canal. He would not permit the application of pressure. On Nov. 27th the femoral artery was tied with a carbolised catgut ligature in the usual situation. The wound was dressed antiseptically. Lac plaster was applied at intervals up to Dec. 28th, when the wound was found to be entirely healed. Some suppuration took place, but it never became putrefactive. He was discharged cured on January 10th, 1872.

The treatment adopted when the popliteal aneurism became diffused was, Mr. Nankivell thinks, judicious. Had the artery been ligatured when the sac ruptured, it would probably have hastened the gangrene, thus necessitating a further operation, and also compelling removal of the limb at a higher level—viz., above the ligature. The recurrence of the disease in the right thigh after removal of the left leg is interesting as showing a disposition to disease of the arteries. The formation of the second aneurism cannot be put down to any strain or blow, as the man was leading a quiet life at home. It might perhaps justly be assigned to constitutional causes.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

FRIDAY, JAN. 26TH, 1872.

SIR W. W. GULL, BART., F.R.S., PRESIDENT, IN THE CHAIR.

THE PRESIDENT delivered the Annual Address, which is fully reported elsewhere in our columns, and for which a unanimous vote of thanks was accorded by the meeting.

Mr. COOPER FORSTER read two cases of Popliteal Aneurism: one of a man at Guy's Hospital, in which for two months pressure, with and without chloroform and flexion, were used, with, at last, a cure of the disease; and the other of a gentleman, in which digital compression was used for three hours and a half, and at the end of that time complete cure was effected. Mr. Forster believed the latter case to show the shortest time on record in which a cure had been effected by any means. The first patient pointed to the necessity of perseverance in the treatment to ensure success. Mr. Forster did not bring these cases forward as any novelty, but rather with the idea of eliciting from surgeons their views as to the advisability or otherwise of persevering in the plan of compression or flexion without the use of the knife. He alluded to the difference in the Scotch and Irish schools; and, though by no means a follower implicitly of either one or the other, he still believed that, in cases of popliteal aneurism, if the surgeon has confidence in his treatment, the cases must be very few in which compression would not be found sufficient for the cure of this disease; and stated that he had never yet tied the femoral artery for the cure of this form of aneurism, though once or twice the tediousness of the recovery of the patient almost induced him to do so.

Mr. ERNEST HART remarked that these cases indicated some very important points in surgical pathology. The first efforts in the way of curing aneurisms were directed to obtaining complete closure of the artery. All plans adopted, however, caused an intolerable amount of pain, and so the Irish surgeons adopted means to slacken the current of blood through the vessel, and so to favour the deposit of fibrin. Mr. Hart believed that the rapid mode was the best; that hence chloroform was a most valuable ally, and that numberless cases are records of cures

effected rapidly, in which the excessive pain given has been disregarded.

Mr. DE MORGAN had been led to modify his ideas as to the treatment of aneurisms in consequence of the great variety of results that followed digital compression. He quoted a case that had been under the care of the late Mr. Moore at the Middlesex Hospital, in which digital compression was adopted for an aneurism of the ulnar artery, and the manipulation very thoroughly performed. The patient died afterwards from renal disease; no deposition of fibrin was found, and, strange to say, no arterial outlet was discovered.

At this stage, Mr. Barwell moved and Mr. Hulke seconded the adjournment of the debate.

Reviews and Notices of Books.

On the Symptomatic Treatment of Cholera, with especial reference to the importance of the Intestinal Lesion. By Dr. FELIX VON NIEMEYER, Professor of Pathology and Therapeutics &c. in the University of Tübingen. Translated by P. W. LATHAM, M.A., M.D., Physician to Addenbrooke's Hospital, &c. &c. Cambridge: Deighton, Bell, and Co. London: Bell and Daldy. 1872.—Although this pamphlet was first published more than twenty years ago, it may be said to embody the latest views of its lamented author; and we think Dr. Latham has rendered a service by putting these before his readers in an English form. "The asphyctic form of cholera," Professor Niemeyer declares, "is the result of the morbid process in the intestines having reached its greatest intensity. At least, all the symptoms which characterise this form of the disease may without difficulty be referred to the severe and extensive mischief in the intestinal mucous membrane, and to the copious transudation from the intestinal capillaries." Not only is diarrhœa in all cases the first symptom, but Niemeyer holds that it is often the only one that shows itself. Regarding the morbid anatomy of cholera, it is urged that the most important condition in the intestines is the extensive loss of epithelium. "The resemblance of the intestine in cholera to a portion of the external skin from which the epidermis has been removed, either by a blister or scalding, is extremely close, and if we consider how great an extent has been denuded, we are at a loss to understand that any observer should speak of a disproportion between the anatomical changes in the intestine and the severe symptoms of the disease during life." We fear that this view must be given up. Boehm was one of the earliest authorities to declare that this wholesale shedding of the epithelium ensued in cholera, and it appears to be generally believed by the German authorities, although not by Virchow and others. It is true that Macnamara found a large amount of epithelium in the dejecta of a cholera case. As Dr. Parkes remarked in 1848, however, there is no proof that the epithelium is usually thrown off until after death in such cases; and the latest microscopical observations, conducted on a large scale and with the greatest care by Drs. Lewis and Cunningham, in India, have entirely failed to substantiate the accuracy of Boehm's statements. Dr. Cunningham expressly says that epithelium was present in only 4 per cent. of the dejecta examined by him, and he goes on to show that cases may prove fatal with very little affection of epithelium. The bulk of the white flocculent deposits of most cholera evacuations consists of cells of all kinds, shapes, and sizes, but not of epithelium-cells. The line of treatment recommended by Niemeyer may be summarised as follows:—On the occurrence of diarrhœa the patient is sent to bed, and by means of clothing, external warmth, and the administration of some hot coffee, perspiration is excited. Opium is held to be the only ingredient in the cholera mixtures of any use in the diarrhœal stage; but "the less homogeneous the motions are, the more distinctly they consist of colourless or slightly coloured serum containing shreds of detached epithelium, the more the thirst increases, together with anxiety and oppression at the præcordia, the more distinctly the violently inflammatory symptoms show themselves, the less service will the use of opium render us." In this stage, when the inflammatory condition is fully developed, but the symptoms of paralysis and thickening of the blood are not yet present, Niemeyer prescribes for adults a grain of calomel every hour, or every two hours, and envelops the body with wet cloths wrung out of ice-cold water, removing these as frequently as required, whilst the patients are at the same time allowed to consume pieces of ice, or small quantities of ice-cold water. It is on the application of the cold cloths, however, that Niemeyer places his chief reliance; and he considers that the success attending this treatment of cholera is superior to that of any other of which he has experience.

The Reflecting Media of the Atmosphere—a Natural Law; and a Treatment of Small-pox, Scarlet Fever, and Measles. By JAMES SHAW, L.R.C.P.E. Simpkin, Marshall, and Co.—The author of this very weak little book, although acknowledging the presence of organic particles in the air, finds no evidence that these particles are "disease germs." He will not accept such a deduction, and consequently proceeds to investigate for himself. He examines sunbeams in various localities, by means of a "new and appropriate microscope" which he has invented. He gives us his experiments with a certain minuteness. Through the microscope he sees some very beautiful sights, such as "innumerable tiny balls, with brilliantly illuminated surfaces." These globules are, he says, "the reflecting media of the atmosphere, and a Natural Law, without the aid of which we should be almost shrouded in darkness, the sun's rays notwithstanding." One experiment is with "a red-hot poker in a two-inch beam." Mr. Shaw is evidently fertile in expedients, for he also invents "a portable dark chamber I could sling upon my finger, and carry with ease anywhere without assistance." We are likewise favoured with his views on consumption, which he says may be communicated from one person to another. "I have known wives, after their husbands have died of consumption, to complain, and eventually die of the same disease; and I have seen a few husbands follow the wives; but the wife more frequently follows the husband." This is explained by the media. We will make no comment upon the second portion of the book, but from the selections we have given the reader can have no difficulty in forming an estimate of its worth.

Suggestions as to the Causes and Treatment of the Hæmorrhagic Type of Small-pox. By JOHN AIKMAN, M.B., late Assistant Medical Officer to the Hampstead Small-pox Hospital.—This is a pamphlet of fifteen pages only, being a reprint from the *Glasgow Medical Journal* of November, 1871, but it contains a very concise and practical *résumé* of notes of five cases of hæmorrhagic small-pox that occurred last year at the Hampstead Hospital. The author considered this intensely virulent variety of the disease to be due to impaired nervous energy, and in the earlier cases that came under his care appears to have prescribed strychnia, wet packing, and stimulants with a very fair amount of success. But the pamphlet is chiefly valuable as one among several records of a form of small-pox but little known to, and therefore not easily recognised by, practitioners of the present generation.

The Public Schools Atlas of Modern Geography. In 31

maps, exhibiting clearly the more important physical features of the countries delineated, and noting all the chief places of Historical, Commercial, or Social interest. Edited by the Rev. GEORGE BUTLER, M.A. London: Longmans, Green, and Co. 1872.—We are all more or less interested in questions of education and the progress made from time to time in the methods of teaching physical science. How many boys, possessing a good knowledge of classics and mathematics, show a lamentable ignorance of geography! This atlas is cheap and good, and exhibits several special features. Among these we may notice that the names of places are always engraved horizontally, except in the case of rivers; towns are placed on rivers and coasts with minute accuracy; the rivers are traced to their sources; and, with one exception, the maps are not folded, so that they are rendered more legible. We can strongly recommend the atlas.

On Chronic Hypertrophy of the Lips. By R. W. TAYLOR, M.D., Surgeon to the New York Dispensary Department of Venereal and Skin Disease. — In this little pamphlet of eight pages Dr. Taylor arrives at the conclusion that there are five forms of chronic hypertrophy of the lips due to change in the deep structures: "the first due to cell-infiltration into the corium and papillæ; the second, to an increased development of the connective tissue stratum; the third, to a hypertrophy of the mucous follicles and the submucous connective tissue; the fourth, to angiomatous tumours, either arterial or venous; and the fifth, due to lymph-angiomatous tumours. ..... A knowledge of these facts, combined with care in the examination of the cases, will undoubtedly lead to an accurate diagnosis." Dr. Taylor is a careful observer, and anything from his pen deserves attention.

The Monthly Microscopical Journal. No. XXXVIII., Feb. 1, 1872. Edited by HENRY LAWSON, M.D.—This number contains—1. A paper on the Relation of Nerves to Pigment and other Cells or Elementary Parts, by Lionel S. Beale. 2. Report on Slides of Insect Scales, by H. Slack. 3. On the Structure of the Stems of the Arborescent Lycopodiacem of the Coal Measures, by W. Carruthers, F.R.S. 4. On Bog Mosses, by R. Braithwaite, M.D., F.L.S. 5. The Advancing Powers of Microscopic Definition, by Royston-Pigott, M.D. 6. Microscope Object-glasses and their Powers, by Edwin Bicknell. 7. Remarks on a Tolles' Immersion 1-15th, by Edwin Bicknell. 8. Maltwood's Finder Supplemented, by W. K. Bridgman. 9. On a New Micro-Telescope, by Prof. H. Ward,—&c.

PROFESSOR WILSON'S LECTURES ON DERMATOLOGY.

Delivered at the Royal College of Surgeons, February, 1872.

LECTURE I.

PROFESSOR WILSON commenced his first lecture with a brief glance at the system of classification which he has adopted, and a summary of the ground over which he passed in the two previous courses. In the last of these he considered eczema and its allies, and he proposed this year to resume the study of the common inflammations of the skin, and then to describe the specific forms. Before passing to the consideration of the next division of common inflammations, the erythematous group, he showed and described some new models illustrative of eczematous affections, which had been added to the collection since last year's lectures, most of them by M. Baretta, of Paris. Two of these were examples of chronic eczema of the hand, with so much dried secretion that in Paris there had been much difference of opinion as to their real nature; one having been called by Bazin "eczéma corné," and by Hardy "psoriasis scarlatiniforme"; the other, by Bazin "ichthyosis," and by Hardy "lichen." A third new model was of a beautiful specimen of lichen planus, an affection differing from eczema only in the absence of desquamation, there being one lesion of the skin instead of two. In the centre of each of the flat papillæ is the opening of a follicle, and this character determines the lichenous nature of the affection. The term lichen has been of late modified in its application. Originally a dermatological term, meaning a circular blotch of eruption, looking as if stuck on, it was borrowed by the naturalists to describe the peculiar cutaneous growth upon trees. By Willan, and at the present day, the term is used to distinguish pimples, but is restricted by some, as the lecturer, to those that are due to inflammation of the follicles.

The essential characteristic of the eczematous family is a complication of appearances, a mingling together of several lesions of the skin, redness, papules, vesicles, pustules, exudation leading to moistness, or to desquamation, or perhaps to swelling. According to the predominant lesion the variety of eczema is designated. Its correct appreciation aids the diagnosis of other cutaneous affections whose lesions are less complex, as erythema, pemphigus, and furunculus.

The essential characteristic of erythema is a hyperæmic redness; it is a pathological blush, and is as evanescent as its normal prototype. Its origin is the same, the operation of the vaso-motor nerves, determined by some external or internal cause which must be sought out and removed. Erythema and eczema are both hyperæmic conditions, but in the latter there is breach of continuity, in the former there is not, though there may be desquamation, and even, in erysipelas, vesication. The affections of this group are erythema, erysipelas, and urticaria. They are characterised by redness, more or less swelling, more or less itching, and more or less mobility. The amount of exudation is the main distinction between erythema and erysipelas, while in urticaria there are transient white elevations, probably due to spasm of the cutaneous muscular fibres. The fugitive and migratory characters of the erythematous group indicate their neurotic origin. Erythema fugax is frequently caused by emotion, and very commonly occurs in a reflex phenomenon from stimulation of the gastric plexus of the pneumogastric nerve. The tumescence which is a frequent accompaniment of these affections is due to exudation from the capillaries. It is usually quickly absorbed, but in one form of erysipelas finds its way to the surface. It may contain some colouring matter from the blood which produces the varied hues of the fading areas. The Professor next pointed out and described the specimens of erythema and urticaria in the College collection of models. That of erythema nodosum was especially interesting, from the position of the eruption in rings around the legs, instead of, as usual, in oval areas parallel to its axis. He drew especial attention to the circumferential growth of some forms, well illustrated by the specimens exhibited, the isolated circles of circinatum, the coalescing circles of gyratum, the fragments of circles of marginatum. This centrifugal development obeys, he said, the same law as the circular waves which sweep over the surface of a pool into which a stone has been thrown. In erythema iris the appearance of the central boss has suggested a resemblance to the iris of the eye, but it probably differs from E. papulosum only in form, and constitutes an interesting link to more decided examples of eccentric annulation to be afterwards considered. Gastric disturbance lies at the root of all these varieties; its cause would seem to be of no importance. Usually some article of food is the source of irritation, but of allied nature are the cutaneous eruptions which follow the use of certain medicines, as belladonna, arsenic, and balsam of copaiba. The papular folliculitis produced by iodide of potassium is probably eliminative in character, but, like the others, is essentially an irritation or over-stimulation of the cutaneous tissues. With this action is no doubt connected the therapeutical influence of arsenic as a cutaneous tonic in many chronic affections, and of the iodide in cutaneous syphilis. Analogy and the accidental cure of a case of lepra suggested the possible utility of copaiba, and Hardy has recommended it in that affection, but in the hands of the lecturer its success has not been great. A beautiful model of erythema copaibicum, by Baretta, was exhibited.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 10, 1872.

THE annual ministerial manifesto to Parliament and to the nation, which is known *par excellence* as the QUEEN'S speech, contains this year little indeed that can call for either criticism or remark. The sessional programme of Mr. GLADSTONE'S Government is small, and contains nothing which could by any possibility be omitted. Education in Scotland, the regulation of mines, the amendment of the licensing system, the improvement of the superior courts of justice and appeal, and legislative provisions founded on the Report of the Sanitary Commission,—all these are things about which it was absolutely necessary to promise to talk; and it may fairly be hoped, at least with regard to some of them, that the talk may proceed to action. The Scotch, we imagine, are very fairly educated already, and may wait until another session, if need be, without material inconvenience. The amendment of the licensing system might perhaps be postponed with advantage until the time when the skill and energies of Ministers are finding congenial employment in opposition. But our system of civil judicature has in practice become an insolent and cruel mockery of justice. Our mining population are killed at the rate of about three persons daily by so-called "accidents" which proper bye-laws would prevent. Our neglect of the conditions essential to the health of crowded communities costs us annual sums of money which exceed in amount all other national burdens, and takes a heavy toll of mortality as well from among the most valuable as from among the humblest of the people. On these three heads, therefore, it is possible for good legislative work to be done; and, if politicians were imbued with real patriotism, we might expect the promises of the Government to issue in measures conducive to the common weal and safety. But such anticipations would in any case be checked by the prospect of a stormy session, amid the party strife of which our hopes of domestic legislation may well chance to suffer total shipwreck. And, as if this were not risk enough, the Government have promised "several" measures of administrative improvement for Ireland (among them, we are informed, that enactment for the periodical restoration and embellishment of milestones of which we long ago pointed out the importance), and a Bill for the establishment of secret voting throughout the United Kingdom. "Justice for Ireland" was once a hustings cry among the followers of O'CONNELL. We wish someone would raise effectively a cry of "Justice for England," and would use some of our urgently needed domestic reforms as a test for candidates at elections. The illness of the Prince of WALES should be employed as a lever to compel the early consideration of sanitary reform; and the members of the House of Commons who are neither the slaves nor the dupes of party should be appealed to to exert all their powers in order that the consideration may be genuine and the reform sufficient. The terms of the reference to sanitary legislation and the place which it occupied in the QUEEN'S Speech are, we fear, indications of a lukewarmness of the Government upon the subject. As Lord DERBY intimated, sanitary reform is a question on which there is no serious difference of opinion; and any attempt to deal with it fully and fairly would have the support of Conservatives as well as Liberals; but the Government seems disposed to give the subject the go-by this session. At least we looked for a specific statement that a comprehensive measure would have been submitted to Parliament; and the absence of a distinct declaration to this effect in the QUEEN'S Speech leaves us in doubt as to the sincerity of the Government on the question.

We need hardly say that the question of medical legislation holds no place in the Ministerial programme; and that the present chaotic state of the profession seems likely to remain unaltered. It is at once an impediment to united action amongst ourselves, and an excuse for the indifference of the Government.

THE escapes of JOHN SELBY WATSON and CHRISTIANA EDMUNDS from the gallows have been a sad blow to our esteemed contemporary, the *Spectator*. We deeply regret that a paper for which we have a great regard, and which we generally read with pleasure, should have suffered so seriously. But the symptoms, we fear, leave little room for doubt that its knowledge of right and wrong is for the time being abolished, and that it is not responsible for its strange conduct. In no other way can we satisfactorily explain the strong language, the reckless charges, and the general "running-a-muck" which, for the last three weeks, have made it so unlike its former self, and which certainly seem most strange in a paper that has been nursed on the milk of Maurician theology. The true excuse must surely be the sad excuse of a disordered mind.

Immediately after the conviction and sentence of CHRISTIANA EDMUNDS, the *Spectator*, after referring to her supposed attempt to throw the blame of her poisonings on Dr. BEARD, said that she added, "after sentence was pronounced, with the same drift, but no truth, that she was with child. The false assertion, the malicious bearing of which was plain enough, has of course been added to the many strange medical pleas of her insanity." Before making this accusation against the unhappy woman then lying under sentence of death, our contemporary would have done well to have looked more closely at the facts. She had been five months in gaol, and had not seen Dr. BEARD since the Christmas before she was sent to gaol, and then only for a short time in the presence of Mrs. BEARD; so that if her false assertion of pregnancy had the malicious bearing which the *Spectator* assumed, she must have designed to astonish the world with a very protracted gestation. And certainly if a woman were to assert, in these days when miracles have ceased to happen except in the presence of Mr. HOME, that she was with child by a man whom she had not seen for eighteen months, one might, perhaps, not unfairly add it to other "strange medical pleas of her insanity." In reality, however, the assertion was a mere despairing impulse of the moment, when the

Clerk of the Court put to her the formal question whether she was with child, and the gratuitous and unfounded charge above referred to was unjust to the prisoner.

In the following week, our contemporary, very angry because of the reprieve which had been granted, said—"The official pretext for the decree is, however, that Baron MARTIN recommended it, which we do not believe; the real reason for the pardon being that a weak man thought the papers would scold him if he hanged a woman of some education and refinement, whose father was mad. Had CHRISTIANA EDMUNDS been a servant, she would have been hanged without more ado, and we should never have heard a word about her latent insanity." This was tolerably strong language in face of the official announcement of the actual cause of the reprieve, and sufficiently complimentary to Mr. BRUCE. He, a weak man, fearing to be scolded, had put forward a false pretext, which our contemporary did not believe. But this was not all: it was followed by an article savagely ironical in tone, and reminding one somewhat of "jesting Pilate" on a solemn occasion when a life was at stake, in which Mr. BRUCE was unmercifully sneered and jeered at, and was accused of raising into a privileged aristocracy persons who had the good fortune to have mad ancestors. It was most wittily suggested to him that he should establish a gold collar as a mark of distinction for his privileged class! "The plain meaning of the respite of CHRISTIANA EDMUNDS was that a weak Secretary had allowed himself to be bullied by the *Daily Telegraph*." For our part, we should not have selected madness and mad ancestors as subjects to be witty upon—they are somewhat too terrible calamities for that; and we do not think that the *Spectator*, when it is restored to its right mind, will quite approve of jesting on such sad matters. But what were the facts? In his speech to his constituents at Stroud, Mr. WINTERBOTHAM, the Under Secretary, declared that "the learned judges who tried WATSON and EDMUNDS came to the decided opinion that in each case the prisoner was insane, and ought not to be executed. In the case of Mr. WATSON the Home Secretary acted, as he invariably did, upon the recommendation and report and strongly expressed opinion of the judge who tried the case, confirmed as it was by the opinion of other judges." After this distinct declaration, we naturally looked for a rectification of the charges against Mr. BRUCE, if not for some expression of regret that they had been made; for, although a gentleman has the misfortune to be Home Secretary, that is hardly a sufficient reason why he should be told that he is a weak man and a coward, and puts forth false pretexts, when there is no ground whatever for such accusations. But we are sorry to say that we looked in vain; all that we found was a contradiction of Mr. WINTERBOTHAM, the assertion being made that, "as regards WATSON, Mr. BRUCE certainly did not act upon the judge's opinion, if Mr. Justice BYLES thought him insane." Moreover, we ourselves have been taken to task for venturing to express an opinion agreeing with that of the learned judge and of the physicians who gave evidence at the trial.

In the article which appeared in its last number, the *Spectator* expresses its opinion "that we have no more means of getting at the truth in this matter" than it has, or "the public who had read the reports of the trials, and not near so much as the jurymen and judges who had heard the cases tried." Well, be it so for a moment. It now appears that the judges who heard the cases tried did come to the decided opinion that WATSON and EDMUNDS were insane; so that our contemporary, which has run full tilt against us and against what it offensively calls the "mad doctors," and against Sir WM. GULL, who, not being a mad doctor, allowed himself to be deceived by a woman "whose life depended on feigning madness" (although Miss EDMUNDS never exhibited the least desire to be thought mad, nor made the least pretence of being so), must now turn its arms against the learned judges who heard the cases tried. But we are not content to admit that the *Spectator* knows as much about insanity as we do, any more than we are content to admit that it knows as much as we do about fever, or small-pox, or pneumonia, or any other disease. In regard to insanity as in regard to other diseases, it is not, whatever the *Spectator* may think, intuition, but experience, which giveth understanding; and it was simply because people, having no knowledge of insanity, and not grasping its real nature as a disease, thought that insane persons could help their madness, that they were subjected to barbarous and cruel treatment in past times; and it is because that idea still lingers in the public and legal mind that they are still sometimes executed as criminals. The position which medical men justly take in this matter, and from which they will refuse to be moved, is that they, and they alone, are competent to decide upon the presence or absence of the disease of insanity; and that it is quite as absurd for the general public to give an opinion in a doubtful case as it would be for a medical man, after listening to or reading an abstruse legal argument, to think himself as competent to give judgment as the judge whose mind was stored with legal knowledge. The *Spectator* thinks that the evidence that Mr. WATSON had governed his rage so long showed his complete power of self-control; and it might just as well think that because a man in health can control the movements of his limbs therefore he is culpable if he does not control them when they are convulsed by disease or by a poisonous dose of strychnia. It is not the knowledge of right and wrong which, as the absurd legal fiction would have it, insanity destroys, but the power of will to do the right and forbear the wrong; and if the *Spectator* be really desirous to get some notion of the actual state of an insane person's mind, it should not conclude from the experience of a sane self-consciousness, but from the experience of a sane person's consciousness in dreams or in delirium. Learning in that way how a man, knowing the right, may irresistibly do the wrong, and be astonished at himself for so doing, it will learn a useful lesson in morbid psychology, and, we doubt not, will be disposed to write more kindly of the insane in the time to come.

There are some other important points raised in the articles of our able contemporary on the cases of WATSON and EDMUNDS, which we must leave to another opportunity. Meanwhile, as it has associated us with Dr. WINSLOW in its comments, it must be remembered that THE LANCET by no means commits itself to an approval of the opinions ex-

pressed in signed articles which appear in its columns. We believe that the distinguished physicians who examined these prisoners and gave evidence at their trials were perfectly competent to discover the real state of their minds; and that in confining themselves to an exact description of the facts, and not imagining or inventing delusions which had no real existence, they acted as became their high characters.

SOME years ago Professor DOGIEL, of Kasan, constructed an apparatus—essentially on the principle of VOLKMANN'S hæmodromometer—by means of which the force or rapidity of the current of blood in the vessels could be estimated. By its means he was enabled to show that various circumstances effected changes in the rapidity of the blood-current in such arteries as the carotid and crural; and he gave the results of his observations on the alterations induced by division of the cervical sympathetic, vagus, and other nerves. The general conclusion at which he arrived was, that the *variations* in pressure and the rapidity of the current of the blood in the larger vessels were due not so much to changes in the vigour of the contractions of the heart as to alterations in the amount of resistance that the current experienced in the smaller vessels. In other words, that the changes were due to peripheric rather than to centric causes. In a paper contained in the last part of PFLÜGER'S *Archiv*, Dr. DOGIEL gives the results of his observations in regard to the influence of the sciatic and crural nerves on the circulation of the blood in the lower extremities. The animals employed were the dog and the frog; and the mode of experimentation was that the mean rapidity of the blood in the carotid and crural arteries and in the crural vein was ascertained; the sciatic or crural nerve was then dissected out and divided where it leaves the pelvis, yet so that both extremities could be easily subjected to the action of electric currents. The animals experimented on were either narcotised by the injection of morphia or poisoned with woorara till the voluntary muscles were completely paralysed, artificial respiration being maintained in the latter case. It was not forgotten that, under the full toxic influence of woorara, paralysis of the vaso-motor nerves takes place.

From the first series of experiments recorded, it appears that, after section of the crural or sciatic nerves and excitation of both the lower and the upper extremities of the cut nerves by electricity, a retardation of the blood-current and elevation of the blood-pressure in the crural artery occurs. Similar variations were also coincidently observed in the carotid, but not in the crural artery of the opposite leg. The retardation of the current was shown clearly not to be dependent upon the increase of the blood-pressure. But it might be due either to contraction of the small arteries of the limb under the influence of the vaso-motor nerves, which probably run in the trunk of the crural or sciatic nerves; or to the contractions induced by the electrical current in the smooth muscles of the arteries; or to the contraction of the striated musculature of the lower extremities supplied by the above nerves; or, lastly, to chemical and physical changes in the blood traversing the vessels. To determine to which of these circumstances the changes observed were owing, Dr. DOGIEL instituted several other series of experiments. From these it appeared that the retardation of the current did not occur on excitation of the sciatic and crural nerves if the animal had previously been subjected to the full action of woorara or morphia, and therefore that such retardation was not due to excitation of any vaso-motor nerves causing contraction of the small arteries, and consequent obstruction of the current in the crural artery. It was easy to demonstrate also that the changes did not result from alteration in the force or frequency of the heart's action. On the whole, he believes his experiments tend to show that the retardation of the swiftness of the blood-current and the augmentation of the pressure, in healthy animals, are simply due to the contraction of the general musculature of the limb. This view is in accordance with the well-known increased flow of blood that takes place from a vein of the arm in venesection when the muscles of the limb are brought into active contraction; for each contraction of the muscles occasions not only a diminution in the lumen of the small muscular arteries which run in the transverse or longitudinal direction of the muscular fibres, but also in the large branches of the arteries; whilst, on the contrary, with dilatation and consequent retardation of the blood-current in the muscular arteries there is a reduction in the rapidity of the current in the muscular veins and in the main veins of the limb.

THE attention of the readers of THE LANCET has on more than one occasion been called by correspondents to the exclusive jealousy which appears to govern the arrangements of some provincial hospitals as to the admission of neighbouring practitioners to witness the performance of surgical operations. We are informed that this jealousy leads to the exclusion of gentlemen who would gladly keep up their knowledge of surgery, or possibly add to it, by witnessing the practice of those who may be presumed to have a more exact acquaintance with the subject, or at least enjoy a more extended field for its practice; and, extraordinary as it may appear to those who know how London hospitals are open to the whole profession, some country surgeons appear anxious to perform their good deeds in secret, and refuse to allow their brethren to be witnesses of their operations in the theatre or treatment in the wards.

Some forty years ago the same absurd and dangerous tendency to shun the light of public observation prevailed in some of the London hospitals; and it was not until the late Mr. WAKLEY fearlessly exposed the wrong thus inflicted on the profession and on the patients that the right to witness and report the proceedings in the public operating-theatres of our hospitals was yielded by some of the older institutions. We are quite aware that the remedy applied was a sharp one, and that a style of comment was adopted which would hardly be suited to these modern and more refined times. But the work was done, and its fruit is seen in the absolute freedom from restriction witnessed in all London hospitals at the present day.

The only grounds on which we can imagine the surgeon of any hospital to wish to exclude professional witnesses of

his practice are, (1) a desire to keep certain methods of treatment to himself, or (2) fear of criticism from conscious incompetence. As regards the first, we can only say that any surgeon who is not prepared to give his brethren the results of any treatment he may practise, or who may employ remedies of a secret nature, is acting neither more nor less than like a charlatan; he would be justly condemned in professional circles, and to him the care of the poor ought not to be entrusted. If afraid of friendly comment from pure nervousness, the operator is to be pitied; but he may rest assured that the presence of many spectators is less trying than the occasional and unexpected attendance of a single friend. If, however, from incompetence, an operator fears unfriendly criticism, for the sake of his patients, the credit of the institution, and his own peace of mind, the sooner he retires from a scene for which he is unfitted the better. If the governors of all provincial hospitals were aware of the safeguard to the wellbeing of the charity afforded by the admission of professional visitors, both in checking incompetence and in stimulating the zeal of the many highly competent medical officers they fortunately possess, we feel sure they would enact a few wholesome rules on the subject which would set at rest, once and for ever, the question of exclusiveness which is now continually cropping up.

Medical Annotations.

"Ne quid nimis."

MEDICAL INSPECTION OF EMIGRANTS.

THE results of the last epidemic of small-pox have shown very pointedly how much one country may directly influence another in the transmission of disease, and our own insular position greatly intensifies this fact. We have assisted during the past eighteen months to carry small-pox to many of the Baltic and Mediterranean ports, to the United States, and to most of our colonies, and the shipping news still continues to report British vessels "spoken" in various parts of the world with small-pox on board. And hence it behoves us to take special care in the inspection of the emigrants that sail from our shores, having in our recollection the fact that the steamship *Franklyn*, some two months ago, carried more than half her passengers into Halifax suffering from small-pox. The law relative to the medical examination of emigrants before leaving British ports appears to be in some sort unsatisfactory, quite as much from a commercial as from a sanitary point of view. Under present arrangements, the medical inspector makes his examination on board on the day previous to sailing, or sometimes on the very day of departure. If he considers any passenger to be suffering from acute or chronic disease, and so unfit to proceed, or likely to endanger the health of others, such passenger is ordered to disembark, the passage money is returned, and subsistence money is allowed during the period of illness at the rate of 1*s.* 6*d.* per day. The plan of delaying the inspection until a few hours before the departure of the ship is objectionable on three heads. 1. It is impossible for the medical officer to conduct a fair and proper examination, such as shall afford any reasonable chance of discovering the incipient signs of acute epidemic disease. 2. If, at the eleventh hour, one member of a family is ordered to disembark, all the rest, sometimes as a matter of necessity, must follow, causing needless waste of money to those who can ill afford it, and great discomfort. 3. If any sick emigrants are so discovered, and sent on shore, the shipowner has no opportunity of obtaining fresh passengers, and so the vessel sails without her complement. A medical consideration of the matter can of course take cognisance of the first objection only, but if a proper remedy be applied, the sanitary, philanthropic, and commercial aspects of the matter can all be fairly dealt with. It appears to us feasible to conduct a primary and principal examination of all intending emigrants at offices on shore, set apart for the purpose, at least two days before the passengers embark—for it is well known that the great majority of emigrants arrive at the port of departure several days before they proceed on board ship. Greater facilities would thus be afforded for the detection of any symptoms indicative of acute disease, or of any chronic malady likely to endanger life during the voyage. Each intending emigrant might be furnished with a pass-ticket by the medical inspector, which, with the other necessary papers, must be produced on embarkation. We believe that by this means a very fair prospect would be afforded of immunity from epidemics during the voyage, families would not be subjected to the unsatisfactory chances detailed above, and shipowners would be less liable to the risk of sending their vessels away with empty berths. It would be proper, however, that the inspector should, subsequent to the official examination of the ship and her fittings, still continue the plan at present adopted of passing in review all the emigrants as late as possible previous to the departure of the ship.

The very small amount of sickness reported as having occurred on board our emigrant ships during the past year indicates the great amount of care that has been taken by the inspectors and all other officers concerned, not excepting those in command of these fine transports. But in the presence of one epidemic, and with the possible advent of another, too much cannot be done to secure the sanitary safety of these large living freights as they are transported from shore to shore.

EDINBURGH UNIVERSITY.

ON Monday last, Sir William Stirling Maxwell, on the occasion of his being installed as Lord Rector in the University of Edinburgh, delivered an address, of which we cannot say more than that it was in all respects worthy of the enlightened, sagacious, and exquisitely cultured art-critic, man of letters, and publicist from whom it flowed. The opportunity, however, of listening to so much sage counsel, beautifully expressed, seems not to have been appreciated by many of his audience. The noise, compounded of stamping, whistling, and singing, accompanied not only by fitful performances on wind instruments, but by the projection of peas and other specimens of undergraduate artillery, was such that the lecturer was scarcely audible beyond the platform. Professor Maclagan had to descend from that coign of vantage and make a sortie into the body of the hall to capture one of the ringleaders; but even this summary measure failed to command silence. Indeed the din was such that the audience must have learned only from the newspaper reports of the following day Sir William's announcement that he had instituted an annual prize of ten guineas during his tenure of office for the best essay on a historical subject. There was one portion of Sir William's address, and but one, which seems to have been heard by the students—that in which he approved the education of women in medicine, while deprecating a satisfactory mode of carrying it out. Immediately the proceedings had terminated, a procession numbering three or four hundred began to patrol the town, hooting before the residences of certain supporters of the medical

education of women, and cheering before those of its opponents. Among the latter, Professor Lister responded to the demonstration, and administered a well-merited rebuke to its ringleaders. They finally proceeded to the house of Miss Jex Blake, and, having insulted an innocent girl *en route*, began to pull vigorously at that lady's door-bell. Miss Jex Blake, however, did not deign to notice them, whereupon the young "gentlemen" dispersed. Conduct such as we have described, on the authority of the local journals, is simply disgraceful, and must ere long prove disastrous to the Edinburgh School. *Tollite barbarum morem!*—a phrase which we invite the young "gentlemen" to construe and their teachers to apply.

SCIENCE IN EXILE.

MR. FREDERICK HARRISON makes a powerful appeal through *The Times* in behalf of the many hundreds of French refugees now scattered over London, and particularly concentrated about Soho. Among these unfortunates there are, to his own certain knowledge, he says, medical students, physicians, physiologists, chemists, besides *savants* in other departments, who are not inferior in talents or attainments to some who (unlike them) have been spared the retributive vengeance of the Government of Versailles. They are all in deep distress; all willing to work; all anxious to turn an honest penny by putting their knowledge to any useful purpose. Mr. Harrison suggests many ways in which these men could be kept from starvation; for example, instruction in the French language by means of conversation may be had from them on very moderate terms. May we follow up the hint in the interest of our medical students? A working knowledge of French, by which we mean the ability to read, write, and speak it with effect, is at once so important an auxiliary to medical study, and so rare an accomplishment among our youth, that the opportunity, now so advantageously presented, of mastering the language ought certainly not to be missed. Classes might be formed, at a rate of admission trifling indeed, but precious to the poor teacher, for the purpose we refer to; and lessons in talking or in reading French on subjects immediately connected with medical study might furnish the student with such a mastery of that tongue as would make his subsequent visits to continental schools, in all of which French is spoken, much more profitable than, in nine cases out of ten, they are. Mr. Harrison has kindly volunteered to introduce to any who may be desirous of combining true charity with useful instruction, a thoroughly honourable, accomplished, not to add pleasant-mannered Frenchman who will hold conversations or give readings in physiology, or any department of medicine for a very moderate fee. Are we wrong in surmising that there are not a few medical students who are willing to avail themselves of the opportunity?

TEACHING AND EXAMINING UNIVERSITIES.

MR. LOWE, who has distinguished himself chiefly by indiscretion since he came into office, has given much uneasiness, not to say offence, to friends of the Scotch University system by his speech at Halifax, in which he maintained that the principal function of a university ought to be that of an examining board, and instituted invidious comparisons between the University of Edinburgh and that of London in the following words: "There are many young men who go up to Edinburgh to be educated for the medical profession. The examination in the Edinburgh college may be easily passed, but I am glad to testify that numbers of these prefer to come to pass the more severe examination imposed upon them by the London University." Dr. Lyon Playfair has come to the defence of the Scotch university system as one combining education and examination. The following extracts are answer enough to the specific though vague charge of Mr. Lowe:—

"The serious and real examination of medical candidates in the University of Edinburgh is so well known that I am almost ashamed to refute the averment of it being easily passed. From 1838 to 1870 only four medical graduates are recorded in the London University calendar as having been educated at the University of Edinburgh, and three others at the private medical schools of that city. Altogether only thirteen Edinburgh medical students appear either in the lists of undergraduates or graduates during a period of thirty years."……

"Both in the London and in the Edinburgh university there is a careful sifting of the candidates. Both of them have three examinations—the first being scientific, the two latter professional. In London a large number of candidates, amounting to 45 per cent., are sifted out at the preliminary scientific examination, while in Edinburgh only 31 per cent. suffer in this process, possibly because scientific classes have long there formed a favourite part of the study. In the second examination London rejects 32 per cent., Edinburgh 30 per cent. of the candidates; while in the final examination, the incapables having been mainly sifted out, London rejects nearly 5, and Edinburgh 8 per cent."

Dr. Playfair further shows that the Scotch system has tradition and the custom of all nations, except that of China, on its side; and of the Chinese example he makes Mr. Lowe a present as the only one comparable to that of his university. We have no sympathy with the cold political economy that declares it not the duty of the State to assist higher educational institutions. We believe it to be alike the interest and duty of the State to do so, and he would be a rash statesman who would substitute for a system like that of Scotland, which has worked such wonders for it, and done so much for England too, a mere examining system. Dr. Playfair is not altogether blameless, however, for the existence of such notions as Mr. Lowe's. He has rigidly refused all assistance to those who, like ourselves, wished to satisfy the State as to medical examinations, at least, being independent of all favour and interest on the part of the examiners. He may live to see that a little more independence on the part of the higher educational institutions would be a wise as well as a dignified course. They have a great claim on the country as educational bodies, very little as examining bodies, and they should be willing that the State should share more largely in the examining function.

ARTIFICIALLY-INDUCED EPILEPSY IN GUINEA-PIGS.

IN the course of some recent experiments on the establishment of artificial epilepsy in guinea-pigs, Dr. C. Westphal has been over the same ground as that explored by M. Brown-Séquard, and fully corroborates the results at which the latter observer arrived. He adds, however, some new and interesting facts. Thus he found that if one or two slight blows on the side of the head are given to a guinea-pig, they are sufficient to bring on an epileptiform attack, after which the animal again recovers its liveliness, or it remains heavy for some time, and then exhibits a kind of rotatory movement, like those shown by Schiff to occur in rabbits after lesion of the crus cerebri. If the blow be too violent, the animal dies with or without convulsions, but always with arrested respiration, the heart continuing to beat for some minutes, and life may be preserved, though usually only for a time, by artificial respiration. If the animal survives the blows, a similar epileptigenic zone is created as in the guinea-pigs treated on M. Brown-Séquard's method by lesion of the medulla oblongata at certain points,

or section of the sciatic; and, as in these last cases, the zone is near the angle of the lower jaw. Before the zone is well established, and four weeks are usually required for this purpose, the animals betray the presence of some irritation at this part by frequently scratching it. After it is established, slight pinching will induce tonic and clonic spasms, though the sensibility of the skin is here diminished. The rapidity with which the zone can be established may be increased by striking the animal's head on successive days, and the excitability of the zone endures for a period varying from six weeks to six months. The condition is hereditary. M. Westphal set himself to ascertain the nature of the changes induced by the blow or blows. That the condition is not produced by any alteration in the integuments is shown by the circumstance that the fits occur when the exposed skull is struck. Careful examination of the brain also furnished no clue to the mystery. But on examining the medulla oblongata and spinalis cervicalis, and even sometimes dorsalis, he found small hæmorrhages both in the white and grey matter to be of constant occurrence, and there was usually also hæmorrhage into the sac of the dura spinalis. These small hæmorrhages appear to induce the primary attack of epileptiform convulsions, and the changes occurring around them to lead to the formation of the epileptiform zone; but *how* or *why* is not yet capable of explanation.

A "NATIONAL" HOSPITAL.

OUR attention having been directed to recent advertisements in the daily papers headed "National Hospital, 85, Newman-street: The Committee thankfully acknowledge the receipt of £—— from ——— in aid of the funds, now exhausted," we have thought it right to inquire into the nature of the charity thus described. The *Medical Directory* for the present year affords the following information, which has been officially supplied to the list of metropolitan hospitals and dispensaries: "*Heart.*—The National Hospital for the special treatment of Epilepsy, Paralysis, Nervousness, and other diseases arising from affections of the Heart, 85, Newman-street, Oxford-street, W. Established 1857; 20 beds. Consulting Physicians: Drs. Spratt, King, Aldis, and Leslie. Physician: Dr. Duncan. Hon. Lady Superintendent: Miss C. Brook Smith. Hon. Sec.: Mr. W. F. Portlock-Dodson. Out-patients about 150 weekly." On visiting the very modest establishment itself, we found a small house, whose front is adorned with inscriptions in English, French, and German, setting forth that it is a hospital for the relief of the poor suffering from diseases of the heart, with a contribution-box stuck on a pole, the better to attract the attention of passers-by. Within the passage, pasted to the wall, we found a paper giving the names of the staff and the objects of the institution in terms not precisely corresponding to those in the Directory. Thus the National Hospital is stated to be for the special treatment, not only of epilepsy, paralysis, and nervousness, but also for "the primary stages of insanity and other diseases arising from the affections of the heart." The names of the active staff are here given as Dr. Eldridge Spratt, Dr. J. W. Moseley, and Dr. David Leslie, two of these gentlemen being also on the consulting staff. We saw a waiting-room and a consulting-room of small size, and, on inquiring for the beds, were taken by the lady superintendent to the first and second floors of the house. On the first floor we found an uninhabited front room with four empty beds in it, and on the second floor four more beds, two only of which had occupants. We inquired for the remaining twelve beds, but were told that two more could be put up if required, making ten in all. The other ten appeared to be *in nubibus*.

Started as a so-called hospital for diseases of the heart, the institution in question appears now to be ashamed of its name, and to appeal for support to the public by the taking title of "National," which, coupled with the words "epilepsy and paralysis," has a direct tendency to mislead and create confusion, since the well-known hospital in Queen-square has for years been called the "National Hospital for the Paralysed and the Epileptic." The absurdity of attributing these diseases or the "primary stages of insanity" to heart disease is sufficiently patent; and we can only express our surprise that a gentleman who is a Fellow of the Royal College of Physicians should allow his name to appear in a document putting forth such pretensions.

It is remarkable that all the advertisements refer to a "committee," but give no names; whilst in the annual report before us, though there is a long list of eminent vice-presidents, the names of the committee are entirely absent. In an advertisement appeal, which appeared in *The Times* of November 22nd, 1871, Admiral J. Burney is named as chairman, and the hon. secretary as W. F. Portlock-Dodson; but still no mention is made of the committee which is so thankful for ten-pound notes received.

POISON REGULATIONS.

THE *Pharmaceutical Journal*, in commenting on an article on Christiana Edmunds and the Poison Regulations which appeared in THE LANCET of January 25th, imputes to us a change of opinion as to the necessity for "more vigorous legislative regulations on the subject of poisons."

There must have been some strange obliquity in the writer's mind to lead him to infer that, because we thought no law could positively thwart a murderer, so no mechanical contrivance could *assist* an educated and careful dispenser to distinguish on the instant bottles containing poisonous drugs, which must, in common with innocent medicines, be hourly passing through his hands. The two questions, "to whom shall we sell" and "how shall we store" poisons, are perfectly distinct. If at the first we ventured to hope that the Sale of Poisons Act would have rendered such occurrences as the Brighton poisonings impossible, it was because we believed no intending murderer would dare to provide a witness to his preparation for crime. On the second question, those who know how strongly we have advocated the necessity for a full knowledge and appreciation on the part of the dispenser of the danger of the substances with which he is surrounded, must know also that a deep "sense of personal responsibility," which such knowledge must induce, is not a new idea of ultimate safety with us. Our opinion on this latter point is exactly what it was when Mr. Forster withdrew his Pharmacy Act Amendment Bill last year; and if he reintroduce it in the present session, with time at his command, we trust Parliament will go with him in providing such salutary safeguards for the public as were then proposed.

RAILWAY DUST.

A *résumé* of a paper read by Mr. J. Sidebotham before the Manchester Philosophical Society at a late meeting is contained in a late number of the *Monthly Microscopical Journal*, which includes some interesting observations whilst travelling by rail between Saltley and Camp Hill. Mr. Sidebotham spread a paper on a seat of the carriage, near the open window, and collected the dust that fell upon it. A rough examination of this, with the two-thirds power, showed a large proportion of fragments of iron, and on applying a soft iron needle he found that many of them were highly magnetic. They were mostly long, thin, and straight; the largest being about one-fiftieth of an inch, and under

the power used had the appearance of a quantity of old nails. He then, with a magnet, separated the iron from the other particles. The weight altogether of the dust collected was 5·7 grains, and the proportion of those particles composed wholly or in part of iron was 2·9 grains, or more than one-half. The iron thus separated consisted chiefly of fused particles of dross or burned iron, like clinkers, and many were spherical, but more or less rough, being covered with spikes and excrescences, some having long tails like the old "Prince Rupert's" drops; there were also many small angular particles like cast iron, having crystalline structure. The other portions of the dust consisted largely of cinders, some very bright angular fragments of glass or quartz, a few bits of yellow metal, opaque, white, and spherical bodies, grains of sand, a few bits of coal, &c. After the examination of this dust it became easily intelligible how it may occasion great irritation. Mr. Sidebotham thinks it probable that the magnetic strips of iron are laminæ from the rails and tires of the wheels, and the other iron particles portions of fused metal either from the coal or from the furnace bars. He suggests the employment of magnetic railway spectacles and magnetic respirators in dry weather.

MEDICAL MEN AND THE TEMPERANCE MOVEMENT.

AMONGST the intemperate persons whose benefit we hoped for from the recent declaration concerning alcohol were the intemperate teetotalers, who can see in alcohol nothing but a poison under all circumstances, used either medicinally or dietetically. We are grievously disappointed. The very post which carried the declaration to medical men carried a pamphlet on the "Duty of Medical Men," by A. H. H. M'Murthy, M.D., of Belfast. Both have been circulated together, apparently by the National Temperance League. It is a poor return to the two hundred and fifty physicians who have shown a disposition to help in this matter to circulate with their declaration an address which insults the profession by charging it with being the "very mainstay of the traffic (in drink), and of those customs which have brought misery and ruin to so many households." Dr. M'Murthy's address is characterised by unfamiliarity with well-known physiological and clinical facts. He lectures the profession in the worst style of the teetotal platform, and betrays, as we have said, a want of appreciation of clinical and physiological facts which induce men as earnest as himself to regard alcohol as a useful thing in its place. The Temperance League could not have done anything more calculated to offend the profession than by issuing this address at this moment, and under the same cover with the declaration of the London physicians. It almost justifies those eminent medical men who think that, as a body, we should have no dealings with the Temperance League.

THE EDINBURGH UNIVERSITY AND LADY STUDENTS.

IF the University of Edinburgh cannot make an exception in favour of the lady students who have been induced to begin medical studies on the understanding that they would be allowed to complete them, its apologists should desist from unworthy defences and irritating suggestions, such as that the ladies might go elsewhere and get a licence to practise, but they must not look for a degree; and that an official in drawing up the calendar simply blundered and misled the ladies as to "the prospect of graduation," and that such "little slips" on the part of officials are common enough. If it is right for ladies to have a licence to practise medicine, it is wrong to deny them graduation. If a blunder on the part of an official led to ladies matriculating and beginning their studies, some means ought to be found of enabling them to finish them, without prejudging the general question, or conceding the general right of ladies to study in the same classes with four or five hundred young men who object, and who have a right to object. We are satisfied that medicine, even in its obstetric department, is a very unsuitable calling for women; but we should like them to find that out for themselves, and we would gladly see all legal and formal hindrances to their entrance to the profession removed.

The lady students at Edinburgh have just sustained a new reverse. Lord Mackenzie has issued an interdict with regard to the votes of contributors in the election of managers of the infirmary. By this decision the votes of firms will not be received; and the result will be that the managers elected by a small majority by means of these votes, and favourable to the admission of lady-students into the infirmary, will be set aside, and the managers opposed to such admission be inducted in their stead. But of course an appeal to the higher division of the Court may yet reverse Lord Mackenzie's decision.

Miss Jex Blake presented to the Edinburgh University Court, at their meeting on Monday, a protest against the decision embodied in the minutes of that body on the 8th inst. Miss Jex Blake resents bitterly the malfeasance of the University authorities in placing an obstacle to the further studies of the ladies, after taking their fees and allowing them to proceed half-way.

GEOGRAPHICAL DISTRIBUTION OF DISEASE.

MR. ALFRED HAVILAND delivered the first of his series of six lectures on the Geographical Distribution of Disease in England and Wales on Thursday, the 1st inst., at St. Thomas's Hospital. Mr. Haviland, after a general introduction, immediately entered upon the question of typhoid fever, pointing out the distinction between it and typhus. He showed, on the coloured maps, to what extent typhoid fever, while following the conditions of physical geography, is modified by certain social causes; thus, while the carboniferous districts of the north present a low mortality, the coal-mining districts present a high mortality. A soft and absorbent soil, sluggish rivers, and superficial wells are physical conditions favourable to typhoid. On the other hand, where the rivers flow fast and straight through a non-absorbent soil, with deep wells, the conditions are opposed to typhoid.

THE "HOSPITAL SUNDAY" MOVEMENT.

THE accounts of the Committee for the late "Hospital Sunday" at Newcastle-upon-Tyne have now been made up, from which it appears that the total amount collected was £1903, and that the net sum of £1750 is available for distribution to the medical charities on the same basis as was adopted in the year preceding—that of giving to each charity a sum proportionate to its expenditure. It was the subject of gratifying remark at the meeting of ministers and others interested in the movement, which was held last week under the presidency of the Mayor, that so liberal a response had been made by the congregations, taking into consideration the fact that a large proportion of the money was contributed by the working classes, many of whom were more or less impoverished by the recent strikes. A proposition was mooted and adopted for initiating a "Hospital Saturday" in conjunction with the "Hospital Sunday" in Newcastle, it being shown that Glasgow raises from £4000 to £5000 yearly for her local charities by collections in the factories, workshops, and public establish-

ments of that city. The success which the "Hospital Saturday" movement has had this year in Liverpool will no doubt have a powerful effect in inducing other towns where "Hospital Sunday" is established to adopt so excellent a supplementary scheme. The "Hospital Saturday" boxes realised at Liverpool in 1871, the first year of their institution, £103; this year the amount already advertised exceeds £600. Why London should continue to ignore a movement which succeeds wherever it is tried, and the results of which are so beneficent in every way, is to us incomprehensible.

"A VERY PRETTY QUARREL AS IT STANDS."

WE recently adverted to the course which the Sub-Committee of the Chelmsford Dispensary had thought proper to adopt towards their medical officers in withdrawing the stipend that had previously been paid to them, and in inducting the parish medical officer into the duties of that institution. A communication appeared at the time in the columns of the *Chelmsford Chronicle*, sharply criticising the conduct of the committee, and dwelling upon the lack of courtesy and consideration that had been shown to the medical staff in this matter. The honorary secretary of the dispensary, drawing a bow at a venture, we may suppose, incorrectly attributed the authorship of this communication to Dr. Roche, of Chelmsford, and thereupon wrote to that gentleman, threatening, unless he disavowed the authorship, to bring the subject before the sub-committee of the dispensary. The correspondence that ensued has since been published, and we dare say the hon. secretary heartily regrets that he ever entered upon it, especially with such an antagonist. An accusation of this kind is rightly, in our opinion, to be regarded as an impertinence, and to be treated as such. Some amusing illustrations of the way in which inquiries as to the authorship of anonymous productions have been or may be met, have been recorded, if we remember aright, by Macaulay and Archbishop Whateley, and it might amuse the hon. secretary to read them, as a corollary to his late correspondence. We see no reason for modifying what we have previously said regarding the action of the sub-committee of the dispensary. It appears that a weekly payment is exacted from each patient, by which a sum is secured much in excess of that paid to the medical officers. Still, this may be regarded as outside the question. The medical staff of the hospital ought to have been first consulted in the matter, especially as the present successful condition of the dispensary is attributable to their exertions. It would not be amiss to call together a general meeting, with the view of ascertaining whether the action of the sub-committee be in accordance with the general wish of those interested in the institution.

GUY'S HOSPITAL.

THE annual concerts in aid of the Samaritan Fund, under the patronage of the treasurer and governors, took place on Thursday and Friday, February 1st and 2nd, in the governors' court-room, and were attended with the usual success. The following gentlemen took part in the singing:—Messrs. A. Buchanan, W. Cock, W. Eager, W. G. Nash, C. J. Oldham, H. N. Smith, T. H. Stephens, C. S. Ticehurst, E. Tipple, and W. Wallis, and the result was highly creditable to all. It may appear invidious to single out one for special commendation, but we feel sure that his *confrères* will gladly agree with us in assigning to Mr. E. Tipple the first place. We understand that at the next biennial dinner, on the 15th March, these gentlemen will favour the company by singing in lieu of the ordinary paid vocalists.

CONNEXION OF NERVES WITH PIGMENT CELLS.

AN essay recently appeared in the *Monthly Microscopical Journal*, by M. Pouchet, in which he endeavoured to show that the chromoblasts of various flat fish are composed of masses of sarcodic substance containing pigment granules or fluid and a nucleus, and that they are in direct connexion with the finest branches of the nerves. In a paper contained in the same journal of the present month by Dr. Lionel Beale this view is contested, Dr. Beale stating that in no case do the finest terminal ramifications of the nerve-fibres end in the manner described. Dr. Beale's observations were made with very high powers.

NATIONAL HOSPITAL FOR CONSUMPTION AT VENTNOR.

THE annual meeting of the Governors of this institution was held at Adelphi-terrace on Wednesday under the presidency of Lord Eversley, and among the influential directors present were Earl Powis, Sir Laurence Peel, Mr. Sidney Hargrove, and Mr. C. W. Hutton. The report of Dr. Hassall, physician to the institution, showed that 89 patients had been admitted during the past year, that 4 only had died, and that 63 had been discharged in a very fair state of health. The institution has lately been assisted by several princely donations, and Her Majesty has consented to honour it with her patronage. We propose next week to give in detail some categorical particulars relative to the structural and administrative arrangements of this series of cottage hospitals, which claim special consideration, because the cottage hospital scheme is represented on a very extended scale.

OUT-PATIENT REFORM AT HOSPITALS.

WE are glad to observe that the question of out-patient reform is making steady progress. In St. George's, Hanover-square, the Committee of the Charity Organisation Society are taking steps to convert the free into provident dispensaries. At University College Hospital many cases of out-patients have been referred to the office of the same Society for investigation. Some glaring cases of imposition have been exposed, and many patients who could well afford to pay for medical advice have been referred to the general practitioners in the neighbourhood. At the Metropolitan Free Hospital, Devonshire-square, a notice has been issued that all applicants for out-patient tickets will henceforth be required to give their names and addresses, for purposes of inquiry, and any person giving a false address will not be admitted a second time.

We may hope that this important movement will extend; indeed, if the Charity Organisation Society continues to exert its full influence, we may hope to see the great reforms we have so long advocated fully carried out.

THE FULHAM SICK CLUB.

OUR attention has been drawn to an advertisement in the *West London Observer* of a so-called Fulham Sick Club, an institution which parades the names of a large committee, which has a secretary and an assistant-secretary, two auditors, and seven medical officers—namely, Messrs. F. Egan, T. Godrich, R. Headley, W. E. Lee, A. W. McLeod, B. Spaull, and B. E. Spaull. The advertisement states that "this Club has been established with the view of enabling every working man to provide for himself and Family the attendance in Sickness of his own Family Doctor. A payment of 1d. per week, or if under fourteen years of age of one halfpenny, will secure every member this boon,

and a payment of 2d. per week will provide the same benefit for a Man, his Wife, and all his Children under fourteen years of age."

Now we have no desire to criticise a scheme before we are acquainted with its details; and we shall be glad if any of the seven gentlemen whose names we have quoted from the advertisement will send us information about this "club," including the history of its origin, the nature of its supposed *raison d'être*, and the limitations, if any, of membership. With reference to the suggestion to attend a man, his wife, and any number of children under fourteen, for the munificent remuneration of 8s. 8d. per annum, it does not appear whether this sum is to include an annual lying-in; but we presume it would do so, as such events are emphatically within the province of the "family doctor." We hear a good deal about the evils of gratuitous medical services; but it strikes us that there are also evils, and very serious ones too, in advertising to sell medical services at rates for which good work cannot be done. We are, of course, entirely in favour of provident clubs, providing that they are established upon a sound basis.

PROFESSOR FLOWER will commence his course of eighteen lectures at the Royal College of Surgeons "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata," on Friday, the 16th inst., at 4 P.M. Professor Holmes will deliver six lectures in June next "On the Surgical Treatment of Aneurism in its Various Forms," and the entire course for the present year will be completed by Dr. Humphry, Professor of Anatomy in the University of Cambridge, who will give three lectures "On Human Myology."

THE Senate of the University of London, as trustees of the Brown Sanitary Institution, have resolved to take counsel's opinion upon the claim made by the Treasury—that the receipts and payments on account of the Trust Fund be included in the accounts rendered to the Audit Department.—The Senate have acceded to the application of the Medical Board of Queen's Hospital, Birmingham, desiring separate recognition of that institution, formerly associated with Queen's College.

IT is not the Treasury alone that looks coldly on the search expedition for Dr. Livingstone. The Admiralty refuses to Lieutenant Dawson, the leader of the Royal Geographical Society's enterprise, and to his companion Lieut. Henn, their full pay and time during their search for the missionary explorer. Lieutenant Dawson was in active service, it seems, when he volunteered to go.

THE several English Universities have now expressed their approval of the conjoint examination scheme which has been promoted by the Colleges of Physicians and Surgeons of London for adoption by the English licensing bodies. Oxford, Cambridge, and London, have finally agreed to the scheme, with the several minor provisos to which we have frequently referred.

MR. F. S. POWELL, who has just been elected member for the North Riding of Yorkshire, was an active and zealous member of the Royal Sanitary Commission, and his return to Parliament is therefore most opportune in view of the discussions upon sanitary legislation which may be expected to arise at an early period of the session.

AT a recent meeting of the Edinburgh University Court, Dr. William Robertson, Mr. Benjamin Bell, and Dr. William Dumbreck were appointed Examiners in Medicine for the current year.

AT Cambridge, the Linacre Lectureship in Physic, resigned by Dr. Paget, has been conferred on Dr. John Buckley Bradbury, of Downing College. The lectureship is in the gift of the Master and eight senior Fellows of St. John's College. Dr. Bradbury graduated in the Natural Sciences Tripos of 1864, when he was placed second in the first class. Thereafter he proceeded to the degrees of Bachelor and Doctor of Medicine. He is also lecturer in Medicine and Natural Science at Downing College, and junior physician at Addenbrooke's Hospital.

DR. ROGERS, President of the Poor-law Medical Officers' Association, has, we understand, received an invitation from the Worcester Chamber of Agriculture to deliver, at the annual meeting of that body on the 17th inst., an address on Poor-law Medical Relief and its bearing on pauperism. This is another satisfactory indication of the interest beginning to be felt by the general public in this important question.

THE Medical Congress of Lyons is to take place in September next. The different societies, hospital staffs, and learned bodies have already elected representatives, who will form themselves into a committee for the purpose of organising this scientific gathering. This is a praiseworthy effort on the part of our French brethren, who seem nothing daunted by the fearful disasters which have afflicted their country.

MR. EDWARD BRADFORD, late Chairman of the Court of Examiners, has been elected the representative of the Apothecaries' Company in the General Medical Council, in the place of Mr. George Cooper, who has been compelled to resign on account of ill-health.

THE thirtieth annual festival of the Hospital for Sick Children was held on Wednesday, under the presidency of Mr. John Walter, M.P., and we are glad to notice that the handsome sum of £2600 was subscribed towards the funds of this excellent charity.

THE mortality returns do not give a favourable account of the health-condition of Rome. The death-rate during last quarter was 43 per 1000 per annum, and no less than 335 fatal cases of small-pox (implying a death-rate of 6 per 1000) were returned.

ACCORDING to present arrangements, the Prince of Wales will go down to Osborne for a few days next week. The Prince was somewhat troubled last week with neuralgia, but quickly obtained relief at the hands of his dentist. The Queen is expected to leave Osborne on the 22nd inst.

THE Kingston Town Council appear determined to prosecute their own sewage scheme in opposition to Mr. Bazalgette. At a meeting held last week it was unanimously resolved to petition Parliament against the Thames Sewerage Commission Bill.

A VOLUMINOUS parliamentary paper on scurvy has just appeared, giving the results of official inquiries made by direction of the Board of Trade.

THE medical men of Cheltenham have issued a declaration identical, save with two verbal alterations, with the now famous London one, regarding the use of alcohol.

MR. T. BRYANT will be put in nomination by the Council for the Presidency of the Medical Society of London.

THE Sheffield School Board insists upon the vaccination of its scholars.

IN accordance with the unanimous approval of a meeting of the Royal Medical Society, Edinburgh, held on Jan. 19th, a humble congratulatory address has been forwarded to Her Majesty the Queen on the progressive recovery of H.R.H. the Prince of Wales.

WE are informed on very good authority that Professor Esmarch, of Kiel, is shortly to marry the Princess Henrietta, of Schleswig Holstein.

Public Health.

METROPOLITAN WATER-SUPPLY.

PARLIAMENT having determined that the metropolitan supply of water shall be taken from the Thames, it is of paramount importance that the public attention should be kept continually fixed on two points—namely, the necessity of removing the existing sources of river pollution; and, secondly, proper filtration. It is to be hoped that the Thames Conservancy Board will not relax in its efforts to compel Richmond, Kingston, and the other towns now draining into the Thames, to remove their sewage; for although there does not appear to be any remarkable excess of organic impurity in the general supply, there is always danger that water contaminated by human excreta may become the medium of propagating disease; and as we have abundant testimony that some of the companies filter their water most imperfectly, it is satisfactory to think that the Board of Trade are about to appoint a competent engineer to inspect the processes employed. The Metropolis Water Act, 1871, comes into operation on the 21st of February, and it remains to be seen how far it is likely to secure for us a constant supply. We believe the contamination acquired in cisterns to be extremely dangerous, but there will be a great struggle made for their retention. The present water-supply of the metropolis is equal to nearly 33 gallons per head daily, of which 80 per cent. is for domestic use. There is, however, great irregularity of distribution, the supply being most scanty amongst the poor, by whom it is most required. There is also great waste; for under a well-managed system and constant service 20 gallons a day ought to provide fully for every want.

MEDICAL REPORT OF THE SMALL-POX AND VACCINATION HOSPITAL FOR 1871.

This report, for a copy of which we are indebted to the courtesy of Dr. Munk, was presented to the annual General Court of the Governors, held on Friday, the 2nd inst. The report states that the epidemic of small-pox to which attention was called in the last annual report has not yet entirely ceased. Its influence was evinced in varying degree throughout the whole of the year 1871—markedly so in the first half of the year, and in minor degree in the second half. The monthly admissions of patients into the hospital during the year 1871 were as follows:—January, 137; February, 117; March, 125; April, 130; May, 109; June, 88; July, 61; August, 39; September, 21; October, 35; November, 40; December, 60. Of the 962 patients thus admitted, 950 were labouring under small-pox, and 12 under varied forms of eruptive or febrile disease—not small-pox, but assumed to be so, and on that assumption sent to the Small-pox Hospital. Of the 950 cases of small-pox, 870, or 91·5 per cent. of the whole cases of small-pox, had been vaccinated, and 74, or 7·78 per cent., were unvaccinated. Six of the patients were reported to have had small-pox previously. Of the 74 unvaccinated cases 49 died, being a mortality for that class of 66·2 per cent. Of the 870 vaccinated cases 130 died, or 14·9 per cent. Of the six cases classed as small-pox after small-pox, 2 died, or 33·3 per cent. Ten deaths in the vaccinated class were caused by superadded disease—viz., bronchitis, 1; gangrene, 3; erysipelas, 3; cellular inflammation and pyæmia, 1; diarrhœa and glossitis, 1; diarrhœa, 1. Fourteen patients admitted last year are still in the hospital under treatment, and one of these is yet in some danger.

The general mortality for the year 1871 has been 181, or 18·8 per cent. of all admitted. Excluding the 12 cases not small-pox, none of which were fatal, the mortality was 19 per cent., a death-rate largely in excess of any that has occurred at the hospital during the last twenty years, and not attributable in this instance, as a heavy death-rate on many former occasions has been, to the number of unvaccinated children suffering from small-pox who have been admitted into the hospital, for of such there were very few in the year 1871, but due to the severity of the disease, and especially to the number of cases of malignant small-pox, the proportion of which, to other cases, has been very largely in excess of anything within the previous experience of either of the medical officers. In this respect the small-pox epidemic of 1870-1 has deviated from the ordinary course of epidemics. As a rule, the proportion of severe cases is the largest, and the mortality consequently greatest, during the earlier portion of an epidemic, the disease becoming milder, the proportion of severe cases less, and the mortality diminishing, as the epidemic approaches its termination. But in the case before us this rule has been reversed, for the proportion of severe and fatal cases increased as the epidemic advanced. In 1870, the first portion of the epidemic, in a total of 1285 cases of small-pox, there were 19 malignant cases, or rather less than 1·5 per cent., whilst in 1871, the later portion of the epidemic, in a total of 950 cases of small-pox, there were 42 malignant cases, or 4·4 per cent. In the 74 unvaccinated cases there were 6 malignant, or 8 per cent.; in the 870 vaccinated 36 malignant, or 4·1 per cent. All the malignant cases, without exception, proved fatal. In fine, the mortality, both in the vaccinated and unvaccinated, has been nearly double what was the average of a series of sixteen years—namely, from 1836 to 1851 inclusive—as may be seen by a comparison of the return of 1871 with the tabulated reports made public by the resident surgeon in 1853. 965 persons have been vaccinated at the hospital during the year 1871, and 732 charges of vaccine lymph have been supplied to the members of the medical profession at home and abroad, besides several large supplies in tubes for the colonies.

The report is signed by Dr. Munk, Physician to the Hospital; and Mr. J. F. Marson, Surgeon to the Hospital.

HEALTH OF LONDON AND THE LARGE TOWNS.

The continued mild weather is producing a very marked effect upon the mortality in London and the seventeen other large towns, which was last week equivalent to an annual rate of 25 per 1000, being less than in any week since the beginning of November last. There was a marked decline in the fatality of small-pox in most of the towns, and especially in London. The mean temperature at Greenwich was as much as 8° above the average on four days last week, and as we have now had fifty-three continuous warm days, it is not surprising to find that the mortality from diseases of the respiratory organs exhibits a marked decline as compared with the results for corresponding periods in former years.

THE METROPOLITAN SEWERS.

It may very well be doubted whether the metropolitan sewerage arrangements are as satisfactory as is generally supposed. Not long ago Mr. Rawlinson drew attention to the dangers of dumb shafts, in which gases accumulated, and in which an explosion took place in the neighbourhood of St. George's Hospital; next we had the scandal of the Park-lane sewer; and now Mr. Haywood, the City engineer, reports that there are still no less than nine main sewers and nineteen smaller ones, within the small limits of the City, still discharging their contents directly into the Thames. If so, how many are there in Westminster, Lambeth, and the rest of the foreshores? Great complaints have been made as to inundations of sewage at King's-cross, Blackfriars, &c., and it is said that large sums have been disbursed as compensation for the damage sustained by the inhabitants of those districts. Nor are there wanting proofs that many of the London sewers are heavily charged with offensive deposits, due to their defective shape; indeed, it is said that this is the case in very considerable areas. Unfortunately the Local Government Board have no power of inspecting the metropolitan arrangements, but

enough has been shown to prove that the operations of the metropolitan vestries and Board of Works ought not to be excepted from a general system of central supervision.

CLERKENWELL.

The Clerkenwell Vestry have unanimously resolved that the sanitary condition of the parish is in a most unsatisfactory state, and they have called upon their medical officer, Dr. Griffith, to prepare a report as to the remedies which should be adopted. Mr. Brooke, one of the guardians of the poor, said that he had personally inspected the houses of the poor, and found that filth had been permitted to accumulate to a most disgraceful extent, and that the poor had no remedy. He read a list of overcrowded and unhealthy dwellings, some of which were "perfectly frightful," and he said that when these people were ill they had recourse to the guardians, and became burdens on the ratepayers. The vestry had permitted houses to remain which should long ago have been razed to the ground. The Sanitary Committee had never once met this year. The medical officer stated that the Sanitary Committee had damped his energy in not considering and acting upon his suggestions. It is to be hoped that the vestry will now turn over a new leaf. They have practically passed a vote of censure on their own neglect of duty, and it will now remain for Dr. Griffith to prepare a comprehensive measure of sanitary reform.

LOCAL GOVERNMENT REPORTS.

Mr. Power's report on the outbreak of typhus fever at Chesham is one of great interest. Chesham has a population of 5000 persons, and, as we reported last week, the mortality for the quarter was at the annual rate of 49 per 1000. In May last the disease was imported by two tramps, who took up their residence in a low beer-shop which opened behind in Hearn's-yard, a densely crowded and most unwholesome place much frequented by the inhabitants. Within forty-eight hours of his arrival one of the tramps was admitted into the workhouse with "fever." He recovered. About ten days afterwards his companion, who had slept in the same bed, also fell ill, but remained at the beer-shop. A few days afterwards another man, who had been in communication with both men from their arrival, was taken ill. A woman living in Hearn's-yard nursed him, and after nursing him for a fortnight she, too, was taken ill. From this time fresh cases occurred more frequently, so that by the end of September there had been in Hearn's-yard and the adjoining houses 38 cases of fever with 5 deaths. About this time the two medical men who had attended the sick fell ill with the fever, and the epidemic began to spread over the town. It was conveyed to Star-yard, half a mile distant, by a woman who went to nurse her daughter in Hearn's-yard, and within forty-eight hours after this woman's seizure her husband and two of her children were down with the fever. Altogether by the beginning of November there had been 80 cases and 21 deaths. The attendants on the sick suffered severely. Of 8 so employed 4 took the disease—viz., two medical men, a nurse from the St. John's Institution, and the vicar; and of these one medical man, the nurse, and the vicar died. It is remarkable that the children were affected at the same time by an epidemic of what was supposed to be measles. But Mr. Power saw some of the patients in bed with typhus cases, and there would seem to be no doubt that the eruption was that of typhus. There were 80 such cases and 4 deaths. The eruption in many cases was not serious, and excited but little attention. The older the child the more severe was the case. It is satisfactory to find that a temporary hospital was opened a few days after the inspector's visit, that considerable activity was shown in the matter of disinfection, and that by the end of the month of November the epidemic was nearly at an end.

STRIKING INSTANCE OF THE EFFICACY OF VACCINATION.

"Nearly forty years ago," says the celebrated American traveller John Rae, "the small-pox spread like a scourge from the Missouri river all over the prairies, being carried by bands of horse-stealers from one tribe to another; for these amiable 'children of nature' no sooner heard of any of their neighbours being attacked by the terrible disorder than parties went immediately to rob the sufferers of their most valuable property. They got the horses, but they also caught the disease, and many hundreds died. The Crees, a tribe of many thousands, having nearly all been vaccinated by the Hudson's Bay Company's officer in charge of the district, escaped with the loss of only two of their number."

North Woolwich.—The Metropolitan Board of Works have at length taken measures to drain the district of North Woolwich. They are to contribute a sum not exceeding £1500 towards the construction of 400 feet of sewer, ten feet wide and of proportionate height, to receive the sewage of North Woolwich, and to act as a reservoir between the tides. The local board undertake the whole future control, subject, however, to the satisfaction of the engineer to the Board of Works.

Lambeth.—Dr. M'Cormack has presented his first report. He finds many plague spots in the parish, and reflects on the bad state of many of the streets. He regrets that a mortuary and disinfecting chamber have not been provided. He finds the waters of the Lambeth and the Southwark companies polluted with sewage, and entirely unfit for human consumption.

Marylebone.—The Guardians have resolved to expend £5230 in the purchase of a site and the erection of a Poor-law Dispensary in York-court and East-street.

Tavistock.—At a meeting of the Board of Guardians held last week twenty-seven fresh cases of small-pox were reported.

INQUIRY RELATIVE TO ENDEMIC DISEASES OF INDIA.

WE have received a copy of an important document which is about to be circulated in India by the Indian Government, with the view of obtaining more definite information than we at present possess with regard to certain diseases which are, most of them, endemic in the country, and whose attack is chiefly confined to the skin. This document, fully illustrated with plates and engravings, and drawn up with great care and ability, is entitled "a Scheme for obtaining a better Knowledge of the Endemic Skin Diseases of India," and is the joint production of Dr. Tilbury Fox and Dr. T. Farquhar. It was submitted in the first instance to the Army Sanitary Commission, who reported very favourably upon it, and the Secretary of State for India in Council at once decided to circulate it in India, as it seemed calculated to render no little service to medical science. The Indian Government, we must say, has of late evinced a most laudable readiness to institute and to further all inquiries which seem likely to really benefit science, and their liberality in meeting the necessary expense, as in the present instance, is commendable. An enormous field for the observation of diseases of all kinds is afforded by India, and we are glad to find that it is about to be utilised in one direction on the present occasion. It is stated that two main objects are proposed:—

"1. To obtain and then to circulate a better knowledge of the more important endemic skin diseases of India, or such as principally attack the skin; and thereby

"2. To bring about an agreement, which is far from existing at present, between the profession in India and in England as to the nomenclature, the typical character, the varieties, and the probable or demonstrated causes of the diseases in question.

"One special though indirect result of the inquiry would be, that those who were training in this country for medical service in India would be enabled to acquire, with no little readiness, a satisfactory knowledge of a certain class of diseases of the commonest occurrence in India, the components of which class they would have at once to treat on their arrival in that country, and of which no great amount of clinical experience can be obtained in England. Further, the inquiry would be of great use to the English, and, indeed, the Continental practitioner, in furnishing him with valuable guides for the more speedy recognition and the better treatment of the numerous cases of peculiar

skin diseases that are imported into this country and elsewhere from India, a locality that abounds in material for scientific investigation as regards the influence of climate, &c., upon cutaneous disease.

"It is also believed that the inquiry may tend to show not only what are the special diseases due directly to special climatic influences, but also the character and extent of variations in the same disease induced by differences of climate: for the same disease does undoubtedly vary in its characters in different countries.

"The mode in which it is believed the objects above stated may be easily secured is by seeking the assistance of the scattered and able medical officers of India in the collection of facts, and by utilising and unifying the experience and opinions of these gentlemen.

"The details of the scheme are so arranged as to remove, it is believed, some of the special difficulties under which the Indian medical officer labours in the prosecution of careful investigations into the nature and causes of disease in India; though, in the face of very special obstacles, it is surprising how good is the work done by Indian observers from time to time. Reference is specially made to the few opportunities afforded Indian medical officers of consulting libraries, of obtaining access to the multifarious periodical publications in which are recorded the most recent researches of European pathologists, the difficulty of carrying about with them the necessary apparatus for minute and experimental inquiry, and the like.

"The difficulties referred to will be in great measure lessened by giving a *résumé* of the latest researches and the opinions of European dermatologists relative to the various diseases to which it is thought desirable to direct attention, and by indicating the points of doubt which require to be cleared up, and the line of investigation which should be pursued in the future, for the further elucidation of the nature and causes of particular diseases.

"By indicating the several points upon which information is specially needed, not only will the main objects of the inquiry be promoted, but the time and labour of Indian medical officers will be greatly economised."

The medical officer, in fact, into whose hands the paper may fall, will be placed in possession of all the information he needs, to at once commence an accurate observation of cases or collection of data. He has no need to go and read up the latest opinions of this or that dematologist on the subject; for they are placed ready to his hand, and he is left in no doubt as to the exact information which is needed.

"The following are the diseases to which it is thought desirable that attention should be directed:—1. Morphœa. 2. Scleroderma. 3. Frambœsia. 4. Delhi sore. 5. Keloid. 6. Fibroma. 7. The elephant leg, or elephantiasis Arabum, or tropical big leg. 8. The fungus foot of India, or Madura foot. 9. The true leprosy, or elephantiasis Græcorum. 10. Leucoderma. 11. Pityriasis versicolor in unusual forms. 12. Burmese ringworm. 13. Malabar itch. 14. Lichen tropicus, or prickly heat.

"The information which is particularly asked for is essentially such as is precise. Mere general statements or replies to questions of a wide and general character are specially undesired. Special forms for note-taking and for tabulating cases are given with the accounts of certain of the diseases.

"When sufficient data have been collected, a special summary report will be made on the whole subject. Each observer will have full credit given him for any contribution he may furnish towards the report.

"Morbid specimens properly preserved, if sent home, would be thoroughly investigated, and the results embodied in any report made. Representations of diseases in the way of photographs, sketches, and coloured drawings are also asked for."

Certain of the diseases referred to cannot be regarded as endemic in India—e.g., scleroderma and molluscum fibrosum. They are dealt with in order that light may be thrown upon the question of their supposed relationship to leprosy.

There are excellent plates and engravings illustrative of Delhi sore, of fibroma, of keloid, of elephantiasis Græcorum, Madura foot, leucoderma, and Burmese ringworm.

Some of the diseases noticed occur in other parts of the world, especially the West India Islands; and we understand that the Earl of Kimberley, having had his attention drawn to the document, has made application to the India Office for copies to send to certain of the colonies, with a view of obtaining the information sought. The Director-General of the Medical Department of the Navy will follow Lord Kimberley's example, it is thought, and forward the document to China and the Red Sea.

The paper is of interest to the European physician, as embodying a digest of all that is known, and as indicating what is best established, with regard to the diseases dealt with. Medical science ought to benefit by the inquiry, the initiation of which is as creditable to the India Office as it is to Dr. Tilbury Fox and his able coadjutor, Dr. Farquhar. We hope the medical men of India and the colonies will forward the object of the inquiry in every possible way, and return such data as may supply the material for a good report upon the nature, pathology, and cause of the diseases treated of in the paper.

ST. THOMAS'S SCHOOL OF MEDICINE.

IT may be confidently predicted that the medical school at St. Thomas's will take its ancient honourable place as one of the first and most complete in the metropolis; and although this is the first session in the new buildings, and there remains much to be done in the way of fittings, arrangement, and decoration, it will be the fault of the student himself should he fail therein to obtain a thorough knowledge of his profession.

The arrangements for imparting a practical knowledge of pharmacy and materia medica are unusually good. The apothecary's shop at St. Thomas's is a large room, situated between the main corridor and the out-patient waiting hall. It is admirably fitted up—on a plan similar to, though less expensive than, that of St. Bartholomew's. It is in charge of a chief apothecary and three assistants, and at the present time there are seven students engaged in a regular course of instruction. It is to be regretted that this number is not greater, for the apothecary remarks that only a few of those who have not passed through this course ever attain to the art of prescribing properly. All the medicines are made up with distilled water. The wine and spirit store is also in charge of the apothecary, and the check upon the consumption is unusually simple and complete. Beneath the apothecary's shop is the laboratory, fitted up with steam evaporating-pan, mortars, &c. &c., and in an adjoining room there is a store of tinctures.

The drug room is fitted with drawers and bunks, it being the habit of the drug committee to buy in fresh stock about twice a year.

The out-patient department is less extensive than when we reported upon it two years ago, owing to the removal to the new building. There are five consulting rooms, and each assistant is attended by three students, who enter the names, write prescriptions, and dress the patients in turn.

The school buildings consist of a somewhat heavy looking structure, in the style of the hospital, from which they are separated by a considerable open space. They comprise a very handsome central room, surrounded by galleries, and used as a museum. The specimens illustrate natural anatomy, pathological anatomy, and comparative anatomy. The first department is already completely arranged; the second, which comprises the magnificent museum of Sir Astley Cooper, is partially arranged, and the last is as yet incomplete. Connected with the museum are proper work rooms for the curator and his assistants. The class and lecture theatres are approached by a long and gloomy corridor. The theatres appear to be small and rather low, but they are believed to be large enough for the number of students. The anatomical theatre is connected with the dissecting room by a door, through which the subjects may be brought in; and the chemical theatre is close to a splendidly arranged laboratory, specially fitted up for the purpose of teaching practical chemistry to a large number of pupils. The professor is provided with a private room, and with a smaller laboratory for private pupils.

One of the most important features of the new school is the physiological laboratory, under the direction of Dr. Harley, F.L.S. There are a number of tables, each pro-

vided with an Argand lamp, water, and gas. There are cupboards for microscopes, and drawers for containing the apparatus for volumetric analysis. Here the operations for the analysis of urine, the estimation of urea, ammonia, sugar, &c. &c., will be taught; and it is satisfactory to find that the students are already taking great interest in this important but hitherto rather neglected department of study. The dissecting-rooms are well stocked, but the old dissecting-tables are not in keeping with the new building, and there was an absence of neatness, which might certainly be improved. The post-mortem room is beyond them. The fittings here require extension, but the room is well adapted for the purpose. The bodies are brought from the wards through a tunnel running the whole length of the hospital beneath the corridor. Beyond the post-mortem room is the mortuary and waiting-room for friends, opening on a yard into which the hearse enters from the public roadway. Above the medical and chemical theatres is the library, a handsome room looking out very pleasantly on the Thames, and here also is a room which, not being required as a microscope-room, will be devoted to a museum of ethnology, the hospital having received a valuable gift of illustrative crania.

The basement has been partially fitted up as a student's restaurant. Here an excellent *table d'hôte* is provided twice a day, at the cost of 1*s.* 6*d.* per head, and a luncheon of bread, cold meat, cheese, and beer, is to be obtained for 1*s.* Dinners and refreshments may also be had *à la carte* at an extremely moderate tariff. The charge for waiting is 6*d.* per month, and the students have the privilege of introducing one friend. In this part of the building is the room for washing infected linen, and the disinfecting oven. The latter appeared to us small; indeed, it would not be possible to use it for a pair of blankets or a bed.

Near the dissecting-room is a students' box-room, and lavatories, latrines, and closets of excellent construction.

Taken altogether, it may be said that the arrangements are fairly good. There are, doubtless, many things which might have been improved upon. The long, and gloomy corridors, the somewhat low lecture-rooms, the almost entire absence of windows through which anyone can look out, the clearly prevailing idea that the nature and use of the building should be concealed as much as possible, and the sacrifices to the style of architecture common to the hospital, are defects which offend the taste rather than mar the utility of the building; whilst if the idea of having a restaurant had occurred beforehand, the basement should have been specially arranged for it, and the rooms should have been higher and better lighted. Nevertheless, we believe that there are few schools indeed where the arrangements are so complete, and we conclude with wishing the establishment the success it deserves.

THE NETLEY SCHOOL.

ON the 31st ult. there was an unusually large gathering of medical and other officers and guests at the mess of this institution, on the occasion of the departure of Inspector-General Beatson, C.B., for India, and the arrival of his successor, Inspector-General Innes, C.B., as principal medical officer of Netley Hospital. The Director-General of the Army Medical Department, Colonel Gordon, the Professors of the Medical School, and Dr. Crawford, the late head of the Medical branch, were present. After the usual loyal toasts, Sir Galbraith Logan, in proposing the health of Dr. Beatson, dwelt upon the vast importance of the appointment that he was about to occupy, and the duties he would discharge as head of the medical service of the British force in India. Dr. Beatson's position would be one of great responsibility and power; many and great would be the problems affecting public health that would be submitted to his judgment. It was necessary, not only to grasp and advocate broad and sound principles of army sanitation, but the possession of those qualities which denote the character of a statesman was requisite to press those requirements that were most urgent, to submit those that were attainable, and often, indeed, to devise the means by which they could be attained. During his previous career in India, Dr. Beatson had rendered signal service to his department by the diplomatic skill with which he had won for its officers the power to exercise those administrative medical functions appertaining to the British army whilst stationed in India. "And," added Sir Galbraith, turning to Professor Maclean, "I shall be pardoned in saying that, considering the many positions of emolument so worthily filled by officers of the Indian army, it was but robbing Peter of his pence to pay Paul." At a subsequent stage the Director-General said he claimed their forbearance, but could not allow that opportunity to pass without proposing the health of an officer who had been the constant and confidential adviser of two Directors-General, and whose more immediate connexion with Whitehall-yard was to be terminated for another career in India—viz., that of Deputy Inspector-General, Dr. Crawford. The mention of this officer's name was the signal for the most lively and prolonged applause. When the carpo-pedal exultation had subsided, Sir Galbraith remarked that it was evident he was pardoned for introducing the toast. It was often declared of a popular man that he had troops of friends, but this officer appeared to have a whole department for his share. The enthusiastic reception of Dr. Crawford's name fully justified the observation, and the spontaneous and evidently sincere expression of regard from men of all grades in the service must have been peculiarly gratifying to the late head of the Medical branch. It is only right to add that, by all accounts, this esteem is richly deserved. We do not dwell upon the ability and other qualifications that made him the adviser of those he served, but during the time that Dr. Crawford has been at Whitehall-yard we have heard on all sides that his conduct of affairs has been invariably marked by that urbanity in little things which denotes "an officer and a gentleman." There was a time when the head-quarters of the Medical Department was regarded by medical officers as a kind of Dante's Inferno, the official circles of which few cared to explore, and from out of which most were glad to escape as soon as practicable. Whatever else may be said against Whitehall-yard—and we suppose that the day will never arrive when it will be in that forlorn state of misgiving when "all men will speak well of it"—this, at least, cannot be said—that its visitants quit it with a shudder attributable to the cold indifference, official reticence, or positive absence of all courtesy with which they were received. For how much of this change the members of the department are indebted to Dr. Crawford we do not care to define; but this we will say, that we believe he did his best to second his chief in bringing about another state of things.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

AT the meeting on the 5th inst. at the Medical Club, Mr. Corrance, M.P., brought forward the present public position of the medical relief question, and after considerable discussion, in which Mr. Brady, M.P., Dr. Rogers, Mr. Webster, Q.C., Dr. Dixon, Mr. Benson Baker, and others took part, a determination was come to to withhold, for the present, the Bill (which had been drafted) on medical relief, until the provisions of the Government Sanitary Bill shall be ascertained, but pending that event to take present action through resolution with the view to testing the feeling of the House. The notice which stands on the journal for Tuesday, the 27th, is as follows:—"Mr. Corrance—Poor Relief: To call attention to the laws relating to the relief of the poor; and to move that the existing system of Poor-law Medical Relief is unsatisfactory to the guardians of the poor, unjust to the medical officers, and productive both directly and indirectly of increased pauperism and augmented rates."

MR. THOMAS SMITH'S GAG.—A discussion lately took place at a meeting of the Surgical Society of Paris on staphyloraphy, and mention was made of Mr. Smith's clever contrivance for keeping the mouth open during operation upon young children narcotised by chloroform. M. Giraldès subsequently showed the instrument to the Society. The name in the report was unfortunately spelt Thomas Syme.

Correspondence.

"Audi alteram partem."

THE IMPROVED OPHTHALMOSCOPE.

To the Editor of THE LANCET.

SIR,—In the description of an improved demonstrating ophthalmoscope which you lately did me the honour to publish, I referred to a slip of glass, marked G in the diagram, as a valuable accessory when showing the fundus of an eye to a large number of persons. Among such there are apt to be some who are not familiar either with the instrument or the appearances; and who, if the position of the patient should undergo change, may fail to see all that one desires to show them. By means of the slip of glass, the demonstrator may himself observe what is in view, and may thus secure that no spectator shall be disappointed.

In my description I suggested placing the slip of glass between the lens and the image. I have since found it more convenient to place it about five inches from the mirror, with its plane nearly parallel to a line drawn from the flame to the central perforation. The demonstrator can then seat himself so as not only to observe the faint image, but so as at the same time to place one hand upon the stand of the mirror and the other upon that of the lens, and to effect any required movements of one or both of them. In this way he has entire control of the demonstration.

I should point out, however, that there is one source of error against which the demonstrator must be on his guard. The observer at the perforated mirror can only look through its perforation, and may lose the image by a small change in the direction of the patient's eye, a change so small that the observer at the glass slip, not being limited by a perforation, may recover his image by a slight and almost unconscious corresponding movement of his head. In this case he may still see what has become invisible from behind the mirror. It is, therefore, necessary that the demonstrator should attend, not only to the nature of the image reflected from the glass slip, but also to its apparent position.

I have found, in practice, that the strong light of my instrument is distressing to some eyes, when they are under examination for any length of time, and also that it drowns, so to speak, certain appearances, particularly slight opalescences of the retina, which are better seen under comparatively faint illumination. To meet the requirement thus arising I have lately used a plane mirror of unsilvered glass, five inches square, behind which the observer seats himself, and looks through it at the image as through a window. The effect of this arrangement is very charming. It affords light enough for many conditions; and glare, broken lights, or irregular reflections, may be displaced from the field by slight movements of the observer. At a recent demonstration at St. George's Hospital, the gentlemen present were unanimous in preferring the unsilvered mirror for five cases out of six; but, in the sixth case, the stronger light of the silvered mirror was required. I believe, however, that by such expedients as increasing the number of plates of glass, or interposing a collecting lens between the lamp and the plates, the unsilvered mirror may be rendered still more effectual; and when some experiments now in hand are completed, I shall once more ask for space to place them upon record.

I read with much interest the letter of Mr. Jeaffreson in your last issue; and, while glad to have the support of his experience, can only regret that he did not give earlier publicity to his substitution of a lens for the mirror in what, when the substitute is made, is no longer Burke's Ophthalmoscope. Indeed, I could almost find it in my heart to complain that Mr. Jeaffreson did not reciprocate what he is so good as to call my kindness, by giving to me personally very early information upon the point. I do not, however, attach so much importance to the substitution itself, as to the facilities it affords for manipulation of the whole instrument by an unassisted observer; and I ought to mention that the very simple horizontal handle by which, in my instrument, the lens is brought within reach, was suggested to me by Mr. Foveaux, of the firm of Weiss and Son.

Mr. Jeaffreson's reference to Laurence's "ghost" ophthalmoscope requires a word of mention. I was in constant communication with Mr. Laurence about this instrument, from its first conception to its final abandonment; and took part in most of his experiments with regard to it. The only approach to a *full* description of it that I know is contained in my translation of Zander; and Laurence's object was always to get a perfect "ghost" as the image for exhibition to the observer. My object has been to get a faint secondary image, by which to control the principal one; and—there being a slip of glass in each—the resemblance between the two instruments is like that between Macedon and Monmouth. The credit of first using a slip of glass to obtain a secondary image should be given, I believe, to Mr. Hulke. But since, in my description, I expressly disclaimed any novelty other than in the modification or rearrangement of elements already in use, I thought it unnecessary to assign any of these elements to their respective originators, already well known to the profession.

I am, Sir, your obedient servant,

Wimpole-street, Feb. 1st, 1872. R. BRUDENELL CARTER.

PARIAN VERSUS PLASTER.

To the Editor of THE LANCET.

SIR,—The remarks in your number of Jan. 27, as to the comparative merits of parian cement and ordinary plaster for the walls of hospital wards, scarcely dispose of a question which is being constantly discussed by hospital committees engaged in the construction of new buildings for the sick. The cost of the former process is three times that of the latter, and I believe much money is needlessly spent in substituting what is assumed to be an impermeable and non-absorbent material for another, which, when properly rendered and finished, will meet all hospital requirements. The practice of setting the walls in parian, like many other questionable improvements, was borrowed from the French, and was first introduced into hospitals in this coutnry in the construction of the new wing at Guy's, more than twenty years ago. Since that time it, or a similar preparation called Keene's cement, has been extensively used to face the inner walls of new hospitals in different parts of the country, and more recently the cement has attained its greatest development by being almost universally employed in preference to ordinary plaster in the new metropolitan hospitals. That parian is harder, and consequently less absorbent than plaster, no one can doubt, but that it possesses any sanitary advantage over the plaster, when the latter is properly rendered, set with compo or trowelled stucco and afterwards well painted, is extremely questionable. The dirty and unsightly appearance of the parian after a year or two's wear is always objectionable, and can only be satisfactorily corrected by the same process which is employed to render plaster walls non-absorbent—namely, by oil paint, which the parian readily receives, and which ever afterwards facilitates cleansing with soap and water.

The result of the costly experiment above referred to at Guy's determined the governors to discard the parian and adopt the plaster in the additional wing of the new hospital, opened last summer, provision being made in the estimates that the walls should be set in trowelled stucco, and that they should receive four coats of paint.

Allow me to say a word for the ceilings. While floors of polished oak or encaustic tile, and walls of parian or porcelain, are not thought too luxurious for hospital wards, how comes it that no heed is taken of the material which clothes the ceilings, presenting as it does a larger surface and more open to contamination than the walls themselves? Ordinary lath and plaster, compounded of chalk, lime, sand, and hair, which has done duty for centuries, is still thought good enough for the purpose referred to, and an occasional dash of whitewash, which is little better than an attempt to substitute white dirt for black, is about all that is done to combat those occult agencies in hospital life which we all dread so much and of which we know so little, but which, by a parity of reasoning, are more likely to find an abiding place where they are least under control—in the higher strata of the ward atmosphere. Surely the principles enunciated with reference to the walls are equally applicable to the ceilings of hospital wards.

I am, Sir, yours, &c.,

Guy's Hospital, Jan. 29th, 1872. J. C. STEELE, M.D.

HEREDITARINESS OF STONE.

To the Editor of THE LANCET.

SIR,—One does not every day stumble upon a family whose surname should have been "Stone," and who could almost keep a lapidary's shop going out of their urinary deposits, as the following instance will show.

There is a man residing in this town, by occupation a fisherman. During the last four or five years I have cut three of his sons for stone, at the respective ages of two, three, and eight. Two of the stones were lithic acid; one, apparently, lithate of ammonia. The father and mother of these lads always have lithic-acid sediment, often gravel, deposited from their urine. The grandfather passed one stone, and the grandmother seven. A great-uncle was cut for stone. There are six uncles and four aunts. They all suffer either from fits of the gravel, or from gravelly or sedimentary lithic-acid deposits; and, to finish up with, there is a cousin, an uncle's child, who gets rid of urinary calculi.

Your obedient servant,
W. H. CLUBBE,
Lowestoft, Jan. 9th, 1872. Surgeon to the Lowestoft Infirmary.

HOSPITAL NURSING.

To the Editor of THE LANCET.

SIR,—Your reports on hospital nursing must, I am sure, have been read with deep interest by all who are anxious for improvement in that important work. In one of them I think you state your opinion to be that the staff of night-nurses ought to be, if anything, superior to that of day-nurses, at least in intelligence. This suggestion just touched the confines of a question to which I think it is high time attention was drawn. I think it is easy to prove to demonstration that in all hospitals, where the nursing arrangements are thoroughly efficient, the whole staff are persistently overworked, and that the result is the night-nursing suffers.

In such hospitals the hours of duty for day-nurses vary from twelve hours to thirteen and a half, the lowest average number of patients to each nurse being, I believe, seven and a half. To these seven patients or more, the day-nurse is therefore expected to give unremitting care for twelve or thirteen hours at a stretch. She is kept working at high pressure, both mental and physical, for seven days a week, remember, not for six, and for eleven months out of twelve, in an atmosphere necessarily depressing to vitality; while, under the most favourable arrangements, she will seldom get more than two hours once in two days for fresh air, and for that change of scene and ideas so important where the mind is kept persistently bent upon one subject. Is not this a clear case of overwork? Then, of course, the night-nursing suffers. The nursing staff is not sufficient for the work; the most efficient nurses must in general be on day duty, to meet the requirements of the medical men, and the night work must be left to those who are less efficient.

If these facts be admitted, the question immediately arises, Why is the staff of thoroughly efficient nurses not larger? I reply, Because the financial arrangements of the various hospitals are not sufficiently liberal. I believe facts would bear me out in saying that in those hospitals where the nursing arrangements are admitted to be the best the expense is barely covered by the remuneration; if it is even that. If greater expense is to be incurred the governors must come to the rescue. If they would enable those in charge of the nursing departments to increase their staff, the day-nursing would be better carried out, and there would be no difficulty in always reserving some of the best nurses for night duty.

In all that I have said I have been careful not to state the facts as strongly as I might have done, and not to draw an unfavourable portrait of a nurse's work and position. I have been assured by those well acquainted with what I would call high-class hospital nursing that, under that system, it is generally found necessary, after five or six years' service, to give a nurse a complete change, for, in some cases, as long as a year, to enable her to recover her general health. This is surely a significant fact respecting the enormously increased demands upon hospital nurses, when one hears of nurses formerly retiring after twenty-four years' service.

I am, Sir, your obedient servant,
Feb. 1872. A FRIENDLY CRITIC.

BROWN VERSUS WAKLEY.

To the Editor of THE LANCET.

DEAR SIR,—I have received a notice that the plaintiff has withdrawn the record in this action, accompanied by a letter of which the following is a copy:—

"35, Bedford-row, London, Jan. 31st, 1872.

"DEAR SIR,—[Brown *v.* Wakley] I learn with considerable regret this morning that Mr. Brown's condition of health is such that he cannot at present be put into the box as a witness, and I have therefore been obliged to withdraw the record.—I am, dear Sir, yours truly,

"S. Potter, Esq., King-street, Cheapside." "FRANCIS LAMB."

I am, dear Sir, yours faithfully,
SAMUEL POTTER,
King-street, Cheapside, London, E.C., Solicitor to THE LANCET.
Feb. 2nd, 1872.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

SMALL-POX still continues rife in this town and in the surrounding district. At the last meeting of the board of guardians a letter was read from Mr. Henley, the Poor-law inspector, stating that although four fresh wards have been erected at the workhouse capable of accommodating 52 patients, he thought it necessary that additional wards for convalescents should be provided at a distance from the existing acute hospitals; and a report from Mr. Burton, the special small-pox medical officer, stated that during the week ending January 26th the number of fresh cases was largely in excess of the week previous, and the type of cases admitted considerably worse; that there were 83 cases, exclusive of convalescents, already in the infirmary, and that there was only accommodation for 10 additional patients; and, therefore, he urged on the guardians the necessity of adopting the advice given by Mr. Henley. Acting upon these suggestions, the guardians unanimously resolved that "four wards be erected for the accommodation of small-pox convalescent male and female patients, of the same dimensions as those last built, and that the master be empowered to cause such wards to be erected with the least possible delay."

The committee appointed to inquire into the insanitary state of the parish offices found ample cause for the complaints to which reference has before been made. In the cellar underneath were found four or five cartloads of old mats, ashes, and other refuse. In the pauper's waiting-room there was no ventilation except that afforded by an open skylight, and opening into it were two watercloseta, one of which had been locked up for years, the reason alleged being that the key was lost. The committee could not help coming to the conclusion that the complaints of the officials as to the insanitary condition of the offices were substantiated, but could not, strangely enough, see that they were "appreciably increased" by the congregation of a number of poor people who were either sick themselves or who came from the bedsides of those who were so, to obtain medicines from the dispensary. They adopted certain means for improving the ventilation of the place, but, evidently on the score of economy, refrained altogether from altering the system of medical relief. Probably an epidemic affecting several members of the board, directly traceable to these sanitary difficulties, will be needed to bring the rest of the body to a sense of their duty.

In Wolverhampton there is a marked decrease in the number of small-pox cases; but in Bilston, Sedgley, and many of the neighbouring towns the epidemic is still raging. In Lower Sedgley there are known to be 60 fresh cases, and of these 21 occurred in one street, respecting which Dr. Eagleton, the officer of health, reports that it is in a filthy

and discreditable state; the houses irregularly packed together so as to prevent the possibility of ventilation, with a large open midden in the centre of the yard, full to overflowing; that the privies are filthy and ruinous, and that open drains branch and welter through the entire property. Three deaths have already occurred in this street, and it will be remarkable if many others do not take place.

By the death of Mr. M. H. Clayton the town loses one of its most amiable and successful practitioners. He died on Tuesday, January 23rd, after a short illness, at the early age of forty-six. He was a warm supporter of the Medical Benevolent Society, and of the local branch of the British Medical Association, and the appreciation of his genial qualities and business abilities was shown by his being unanimously appointed chairman of the committee for making arrangements for the entertainment of that body in Birmingham at its next annual meeting.

On the 17th ult., Dr. Johnston read a valuable paper at the Midland Medical Society, "On the Effect of Over-lactation and of Dry-nursing on Infants." Mr. W. Garman, of Wednesbury, brought forward a case of resection of the hip-joint, in a boy aged fifteen, for old disease of twelve years' standing, in which the operation appeared to have been successful. Mr. Gilbert Smith showed a patient who had been the subject of stricture and fistula in perineo, in whom dilatation by means of catheters had effected a cure. Mr. West presented a pathological specimen of gunshot fracture of the skull of some interest, showing that at the aperture of exit of the ball there had been greater splintering of the outer than of the inner table of the skull. The pistol in this case had been held close to the right temporal bone, and the bullet had passed through the brain and emerged at the opposite parietal bone. The increased splintering of the outer table was evidently due, as has before been described by Professor Erichsen, to the direction of the fracturing force being from without inwards. In most cases of depressed fracture of the skull the tabula vitrea is found to be most extensively fractured, not, as was formerly thought, in consequence of the greater brittleness of that layer, but because the fracturing force is usually applied from without inwards.

The late Mr. Gillott, of steel-pen notoriety, has left £3000 to the medical charities of Birmingham; and the General and Queen's Hospitals also each receive £2500 under the will of the late Miss Rushton. The General Hospital and the Eye Infirmary, Birmingham, and the Wolverhampton Hospital, have each bequests of £1000 (duty free) from Miss Fellowes, of Leamington, and the same charitable lady has also left other sums, amounting in all to £17,500, for various benevolent institutions in this part of the country.

The Medical Committee of the Queen's Hospital have presented thirty volumes, including the works of Dickens and Carlyle, to Mr. H. C. Burdett, the Secretary, to mark their appreciation of his efforts to promote the success of the Clinical School.

Birmingham, Feb. 4th, 1872.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

SMALL-POX, I am happy to state, is decreasing in Dublin, and not only are the cases less in number, but the type of the disorder is of a much milder character than heretofore. There were, however, 40 deaths from the disease for the week ending January 27th, whilst during the same period 14 deaths were registered in Belfast, and 13 in Cork. For some time there was a great scarcity of vaccine lymph in this city, the dispensary medical officers not having sufficient for their own use; and medical practitioners could not obtain it at the Cow-pock Institution at any price. This oversight on the part of the vaccine authorities has now, however, been rectified.

Last week a deputation of the students, past and present, of the Richmond Hospital, amounting to upwards of a hundred, waited on Mr. William Stokes, one of the surgeons of that institution, at his residence, for the purpose of presenting him with an illuminated address and solid silver claret jug, with a suitable inscription. These were given by the students to Mr. Stokes in relation to matters which took place at the recent trial in this city of Kelly, for the murder of Talbot, and as a mark of their high esteem of his ability as a surgeon, and their appreciation of his uniform zeal for their professional advancement.

Funds are at present being collected in Belfast for the purposes of establishing a Nurses' Home and Training School in that town, and it is satisfactory to find that these efforts are meeting with a ready response in the shape of donations and annual subscriptions. The necessity for trained nurses, responsible to the institution to which they belong, is acknowledged by all, especially at the present time, during the prevalence of the small-pox epidemic from which Belfast is suffering. In Dublin, the Training Society cannot provide nurses sufficient to meet the applications which are made for them; and I trust the promoters of this excellent work will succeed in their endeavours to form what will be a most valuable addition to the existing benevolent institutions of Belfast.

The students of the Queen's College, Cork, met lately and adopted a resolution of condolence with the family of the late Dr. Blyth, Professor of Chemistry in that University. They also determined to perpetuate his memory by erecting a monument to him in the college, and, in order to carry out this suggestion, a committee was appointed to receive subscriptions, and to make other arrangements necessary for the fulfilment of the project.

Dr. Dill, borough coroner of Belfast, was seriously assaulted last week by a ruffian who rendered him senseless by a blow on the face. His life was for some time in great danger, and it is feared he will lose the sight of both eyes, which have been badly injured from the broken glass of the spectacles which Dr. Dill was in the habit of wearing. The perpetrator of this malicious outrage, who it seems was at the time in a state of intoxication, has been remanded, bail being refused.

Dublin, Feb. 5th, 1872.

HOUSE OF COMMONS.

FEB. 6TH.

NOTICES OF MOTION.

MR. BRUCE gave notice of his intention to move for leave to bring in a Bill for the Prevention of certain Contagious Diseases and the better Protection of Women (13th inst.) The President of the Local Government Board for leave to bring in a Bill to amend the Laws relating to Public Health (16th inst.) Mr. Corrance to call attention to the System of Medical Relief for the Poor, and move a resolution (27th inst.) Mr. W. Fowler of a Bill to Repeal the Contagious Diseases Acts of 1866 and 1869. Dr. Dalrymple of a Bill dealing with Habitual Drunkards; and Sir H. Selwin-Ibbetson of a Bill to Provide for the better carrying out of the Laws relating to Public Health in Rural Districts.

FEB. 8TH.

Mr. Charley obtained leave to introduce a Bill for the Better Protection of Infant Life, and Sir W. Lawson his Permissive Liquor Bill. Sir C. Adderley gave notice that on the 16th inst., on the occasion of the introduction by the Government of their promised measure relating to the public health, he should ask leave to introduce his own measure of last session for consolidating and amending all the laws relating to public health now existing and applicable to England and Wales.

COLLEGE OF SURGEONS.

AT the meeting of the Council on Thursday, the 8th inst., Mr. Le Gros Clark was elected an Examiner in Dental Surgery. Mr. Simon's proposition, that vacancies in the Court of Examiners should be advertised, was carried. The following gentlemen were nominated to fill the vacancy in the Court of Examiners caused by Mr. Cock's resignation: Messrs. Campbell De Morgan, Spencer Smith, Birkett, and Callender. The election was fixed for the 29th inst.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 1st:—

Breeze, Richard Goodwin, Euston-road.
Mahomed, Fredk. Henry Horatio Akbar, Brighton.

On the same day the following gentleman passed his First Professional Examination:—

Barron, Fredk. William, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS OF IRELAND. — At meetings of the Court of Examiners held on Jan. 9th, 10th, and 11th, the undermentioned passed their primary examinations in Anatomy, Physiology, and Materia Medica:

Benjamin Armstrong, Francis T. Bray, Valentine J. Browne, Henry W. Barton, James H. Callery, Charles J. Diamond, Thomas Elliott, William Hamilton Elliott, J. K. Gentleman, Matthew P. Healy, Henry J. Hillis, Richard J ckman, Thomas J. Kelly, Robert Magill, Michael J. Malone, Roger Mac Auly, James M'Gann, Archibald M'Kinlay, James Murtagh, Hamilton Macmullen, John L. O'Keefe, Thos O'Meara, Edward Peele, Samuel B. Shekelton, Chas. J. Smith, William J. Smyly, Henry Tweedy, William Whittaker, John H. Williams, Stewart Woodward.

At the preliminary examination in Arts held on Jan. 17th, the following were awarded certificates:—

FIRST CLASS.—Michael Molohan, James F. Hogan.
SECOND CLASS. — Wm. J. Cahill, Peter J. Hughes, James O'Brien, Fredk. Walsh, Michael W. Kerin, William Thompson, Henry Howard, Edward Walshe, Patrick Carney.
UNCLASSED. — Charles Anderson, Thomas Bellew, Ulick Bourke, Edward Foley, Robert Grier, John Keoghan, Hugh Mackintosh, Patrick Poett, Henry Powell, Thos. Reed, William Ross, Kenuedy Ryan, John Smith, Bernard Smith, Terence Smith, Lawrence Ward.

IN Paris the oxy-hydric light is used with great success in lighting up the Boulevards.

A RETURN issued by the Local Government Board shows that on July 1st, 1871, the number of paupers relieved in England and Wales was 973,603.

THE Chelmsford Local Board of Health are desirous of appointing a medical officer of health for the district at a salary of £25 per annum.

A SERIES of dramatic performances recently given at the residence of Sir Percy F. Shelley, Christchurch, in aid of the National Sanatorium at Bournemouth, produced the handsome sum of £200.

A REPORT on the hospital small-pox cases, lately read before the Manchester Board of Guardians, showed that while the mortality among unvaccinated patients was 55¼ per cent. of the total number attacked, it was only 4½ per cent. in the case of those who had been vaccinated.

THE sum of twenty guineas has been presented to Mr. James Neighbour, the Sanitary Inspector of St. Luke's, Middlesex, as an acknowledgment of the valuable services rendered by him during the epidemic of small-pox. Mr. Neighbour is one of the most efficient vaccination inspectors in the metropolis, and gave evidence on the subject before the Committee of the House of Commons.

M. PULVERMACHER, the well-known medical electrician, gave a *soirée* at his residence at Hampstead, on Saturday evening last. A numerous company, including several members of the medical profession, were present. In the course of the evening various interesting experiments were performed, demonstrating the importance of medical electricity.

A MEETING of the Royal Star Life Assurance Sick and Medical Benefit Society was held on Thursday evening, Feb. 1st, in the Temperance Hall, Wolverhampton. The prevalence of small-pox and other sickness had caused a great strain on the Society, but it had been able to meet it and to report a balance of £1090. A special paragraph on the report was devoted to the praise of Dr. G. N. Smith, and, better still, the following resolution was agreed to:—"That the committee be and is hereby empowered to expend the sum of twenty-five guineas in presenting to Dr. G. N. Smith a testimonial from the members of this Society of their high respect for the integrity and benevolence of his character, and in recognition of his skilful and self-denying labours during the past seventeen years, and more especially during the epidemic of the past year, as chief medical officer of this Society."

Medical Appointments.

BARRY, J. C., L.K.Q.C.P.I., L.F.P. & S. Glas., has been appointed Medical Attendant to the Royal Irish Constabulary, Ballydaff, Co. Waterford, vice R. O'Reilly, L.K.Q.C.P.I., L.R.C.S.I., resigned.

CROMBIE, J. M., M.D., has been appointed Resident House-Surgeon to the Cancer Hospital, Brompton, vice J. Hayward, M.R.C.S.E., late Resident Assistant-Surgeon, resigned.

ETHERIDGE, C., M.R.C.S.E., has been elected Medical Officer for the Upper District of the Leighton Buzzard Union.

HOLMAN, E. C., M.R.C.S.E., has been elected Medical Officer for District No. 3 of the West Firle Union, Sussex.

HORDER, T. G., M.R.C.S.E., has been appointed Medical Officer of the Loyal Bourne Lodge of Odd Fellows, Bournemouth, vice W. H. Blenkinsop, M.B., resigned.

JACKSON, A., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed for six months Medical Officer and Public Vaccinator for the Pocklington No. 2 District and the Workhouse of the Pocklington Union, Yorkshire.

JOHNSON, W. F., M.R.C.S.E., has been appointed Medical Officer for District No. 2 of the West Ashford Union, vice C. Wilks, M.R.C.S.E., resigned.

MAUNSELL, J., M.D., L.R.C.S.Ed., has been appointed House-Surgeon to the Blackburn and East Lancashire Infirmary, vice W. G. Scott, M.B., C.M., resigned.

PEACOCK, E., M.R.C.S.E., has been appointed Surgeon to the Midland Railway Friendly Society, to the Prudential Assurance Company, the Manchester and Nottingham Order of Odd Fellows, the Foresters, the Druids, the Druids' Sick and Burial Society, the Free Gardeners, and several other Friendly Societies, Nuneaton, Warwickshire, vice Eaton, deceased.

ROBINSON, A., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to the Foresters', Druids', Odd Fellows', and Free Gardeners', Societies, Nuneaton, vice F. B. Eaton, L.R.C.P.Ed., L.F.P. & S. Glas., M.R.C.S.E., deceased.

SALMON, A. L., M.R.C.S.E., has been appointed House-Surgeon and Secretary to the Royal Cornwall Infirmary, Truro, vice William Nettle, M.R.C.S.E., resigned.

SIMPSON, Mr. J., has been appointed a Dispenser to St. Thomas's Hospital.

SKELTON, H., L.R.C.P.Ed., M.R.C.S.E., has been elected Medical Officer for the Mangotsfield or No. 5 District of the Keynsham Union, vice H. M. Grace, M.R.C.S.E., deceased.

TATHAM, E., M.B., C.M., has been elected Medical Officer and Public Vaccinator for the Bentham District of the Settle Union, Yorkshire, vice R. Tatham, L.R.C.S.Ed., resigned.

TROTTER, J., M.D., has been appointed Consulting Physician to the Durham County Hospital, on resigning as Physician.

WARDY, H. E., L.R.C.P.L., M.R.C.S.E., has been appointed Surgeon to the Gloucester Lying-in Charity, vice T. S. Ellis, M.R.C.S.E., resigned.

WILLIAMS, J., M.D., has been appointed Assistant Obstetric Physician to University College Hospital.

WILLIS, J., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Mitcheldever District of the new Winchester Union, vice F. Eldridge, M.R.C.S.E., resigned.

WINKFIELD, A., F.R.C.S.E., has been appointed Medical Officer of Health for Oxford.

WOOD, W., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Middleton District of the Driffield Union, vice J. Wood, deceased.

WOODHOUSE, W., M.R.C.S.E., has been appointed Medical Officer for District No. 5 of the Norwich Union, vice T. W. Crosse, F.R.C.S.E., resigned.

Births, Marriages, and Deaths.

BIRTHS.

HIME.—On the 5th inst., at Glossop-road, Sheffield, the wife of Dr. Hime, of a daughter.

JOLLYE.—On the 28th ult., at Donington, Spalding, the wife of E. W. Jollye, M.R.C.S.E., of a son.

MOORE.—On the 28th ult., at Cambridge-heath, the wife of Dr. Moore, of a daughter.

ROSE.—On the 5th inst., at Mile-end, the wife of C. Rose, L.R.C.P.Ed., of a daughter.

WINKFIELD.—On the 6th inst., at Forest Lodge, Shirley, Southampton, the wife of W. B. Winkfield, Esq., of a son.

MARRIAGES.

PORTER—WILLIAMS.—On the 6th inst., at Ardingly, Sussex, Wm. Elliott Porter, Surgeon, of Lindfield, youngest son of the late Rev. J. T. Porter, formerly of The Close, Salisbury, to Julia Martha, only daughter of the late H. W. Williams, Solicitor, and granddaughter of the late Thomas Gibbs Crawford, Esq., of Pax-hill-park, Lindfield, Sussex.

CARELESS—OGSTON.—On the 1st inst., at Golden-square, Aberdeen, Edward Nicolls Careless, M.B., C.M., of Devizes, to Amelia, youngest daughter of the late Alex. Ogston, Esq., of Ardoe.

DEATHS.

BALDERSON.—On the 3rd inst., at Woburn-square, Abraham Thos. Balderson, L.S.A.L., for many years Assistant to Sir Astley Cooper, in the 68th year of his age. Friends, please accept this intimation.

OWEN.—On the 2nd inst., at Bron Philip Bottwnog, Ellen, the wife of R. H. Owen, L.R.C.P.Ed.

QUEKETT.—On the 6th inst., at Delamere-crescent, Upper Westbourne-terrace, Isabella Mary Anne, widow of the late John Quekett, F.R.S., F.L.S., Conservator of the Hunterian Museum, and Professor of Histology at the Royal College of Surgeons of England.

RAYNER.—On the 26th ult., after a long and painful illness (angina pectoris), William Rayner, M.R.C.S.E., in his 71st year.

TOWNSEND.—On the 29th ult., after a short illness, Charles Townsend, Surgeon, of Pakenham-road, Edgbaston, and Temple-row, Birmingham.

Medical Diary of the Week.

Monday, Feb. 12.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
MEDICAL SOCIETY OF LONDON.—8 P.M. Dr. Silver, "On Mitral Stenosis" (communicated by the President).—Mr. Walter Coulson, "On Lithotomy after Lithotrity."

Tuesday, Feb. 13.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Dr. W. Rutherford, "On the Circulatory and Nervous Systems."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Ballot.—8½ P.M. Dr. Broadbent, "On the Cerebral Mechanism of Thought and Speech."

Wednesday, Feb. 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Erasmus Wilson, "On Dermatology."
EPIDEMIOLOGICAL SOCIETY.—8 P.M.

Thursday, Feb. 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Odling, "On the Chemistry of Alkalies and Alkali Manufacture."
HARVEIAN SOCIETY OF LONDON.—8 P.M. Clinical Meeting.—Dr. Wynn Williams, "On a Case of Artificial Anus consequent upon Umbilical Hernia."

Friday, Feb. 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Flower, "On the Comparative Anatomy of the Organs of Digestion in the Vertebrata."
ROYAL INSTITUTION.—9 P.M. Dr. Gladstone, "On the Crystallization of Silver and other Metals."

Saturday, Feb. 17.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. Wm. B. Donné, "On the Theatre in Shakespeare's Time."
ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—7½ P.M.

Notes, Short Comments, and Answers to Correspondents.

CORONERS' INQUESTS.

DURING the last three months of 1871 there were 6423 deaths registered in England and Wales upon the information of the coroners, amounting to 2·8 per cent. of the total deaths registered. In the seventeen principal cities and towns the proportion of inquest cases was less than 5 per cent. in Portsmouth, Norwich, Bristol, Wolverhampton, Leeds, Sheffield, Hull, Sunderland, and Newcastle; from 5 to 7 per cent. in London, Leicester, Nottingham, Salford, and Bradford; and over 7 per cent. in Manchester, Liverpool, and Birmingham.

S. K. A.—It is contrary to our practice to comply with our correspondent's request. Let him consult some respectable practitioner.

Medical Candidate had better apply officially to the Director-General of the Army Medical Service, Whitehall-yard.

AN APOTHECARY IN PETTICOATS.

WHATEVER obstacles Edinburgh may throw in the way of females studying the healing art, Londonderry shows a strong disposition to admit them not only to study, but to practice. There the Poor-law guardians have constituted themselves into a licensing body, as appears from their late appointment to the staff of the Fever Hospital. The infirmary nurse, a Miss Shannon, before being elevated to the above office, was examined by one of the guardians as to her skill in pharmacy. "Would you object," quoth the guardian, "to another nurse assisting you in compounding drugs?" "Well," was the answer, "she might look on; but I could not let her do it." Guardian: "Could not Dr. White do it?" Nurse: "No; Dr. White would not waste his time doing it." Guardian: "Can you read the doctor's prescriptions?" Nurse: "Yes; I can read the Latin as well as the English." Guardian: "Are you a Latin scholar?" Nurse: "No; but I can read the prescriptions." Guardian: "Did you do the compounding ever since you came here?" Nurse: "Yes." Guardian: "Would you be willing to show another woman how to do it?" Nurse: "I would do what I could." With this Miss Shannon was appointed with an increase of salary, to combine the duties of instructor and compounder. She has already, it seems, though ignorant of Latin, been entrusted with the compounding of drugs for the workhouse, and is now in a position not only to continue the duty in the Fever Hospital, but to instruct another "lady-doctor" to fill her vacated post. May the pupil excel the mistress; and may the Medical Council and the heads of Apothecaries' Hall lose no time in noting and recognising the new qualifying board at Londonderry.

Dr. Macleges (Dundee) shall have an answer to his communication next week.

INTERSTITIAL PNEUMONIA (?)

To the Editor of THE LANCET.

SIR,—THE LANCET of the 23rd December last reports a meeting of the Pathological Society, at which Dr. Green showed a specimen of "interstitial pneumonia." Judging from the history of the case and condition of a portion of the right lung, I apprehend it was an example of (essentially) the disease described by Corrigan thirty-four years ago, at a meeting of the King and Queen's College of Physicians, Ireland, and named by him, from analogy to a similar disease of liver, cirrhosis of the lung. The words of Sir Dominic describing the pathological condition in his specimen, judging from your report, are strikingly similar to those of Dr. Green when expounding his. The former says: "A section of lung in cirrhosis resembles a section of honeycombed stones on the sea-shore" (the work of the Phœas). The latter (according to your account) represents the lower lobe of the right lung as "very much like a honeycombed sponge." The site of the heart, no important a diagnostic between phthisis and cirrhosis, is not stated by Dr. Green, nor the condition and volume of the whole of the right lung (including left), nor the stethoscopic sounds, so closely resembling those of phthisis pulmonalis that it is believed, until Sir Dominic Corrigan fixed the attention of the profession on the circumstance, cirrhosis had been mistaken for phthisis pulmonalis over and over again, and *vice versâ*. One is not prepared to expect displacement of the heart to any extent, if at all, in Dr. Green's patient, this symptom being observed only in proportion to extent of lung cirrhosed. In a discussion that ensued, Dr. Wilson Fox said the case was a very rare one, the condition of lung being due probably to (antecedent) pleuritic effusion.

"In many cases of absorption of a pleuritic effusion," says Dr. Stokes (Diseases of the Heart and Aorta; Fannin, Dublin, 1854), "where lung has not regained its original volume, dilatation of bronchial tubes occurs, and advances slowly till a condition mechanically similar to cirrhosis of the lung, as described by Dr. Corrigan, actually takes place, and then we have a case which, seen the first time, it is difficult or impossible to distinguish from the original disease."

I apprehend, Sir, this extract from Dr. Stokes explains the condition of the lower lobe of the right lung in Dr. Green's case—that is, on the supposition it was not due, so far as it went, to cirrhosis pure and simple. Anyhow, is the diagnosis "interstitial pneumonia" a correct designation of the diseased right lung submitted by Dr. Green to the Pathological Society on the 5th ultimo? I doubt it. Yours, &c.,

January, 1872. STETHOSCOPE.

A FICKLE FORCE.

PROBABLY Galvani did not anticipate for his discovery that it would be made by his successors in the same line of research a means of "blowing hot and cold." We have all heard of the explosion of torpedoes by the application of the galvanic current. Now we are told of the successful efforts of Dr. Bernier, a French physician, to put out the beacon fire of *Bardolph* by the same agency.

Excalibur.—The Edinburgh College will be very likely to meet our correspondent's wishes.

MEDICAL SOCIETY OF LONDON.

AT a meeting of this old Society, specially convened for the purpose, it was decided that the following congratulatory address should be presented to Her Most Gracious Majesty the Queen:—

We, the President, Council, and Fellows of the Medical Society of London, in special meeting assembled, desire to approach your Majesty with feelings of deep thankfulness, to give utterance to our humble and earnest congratulations that it has pleased the Almighty to raise up His Royal Highness the Prince of Wales from a bed of sickness, and thus to avert from your Majesty's House, and from your Majesty's loyal people, a calamity, of which the possibility had filled all hearts with apprehension. We rejoice that it has been the privilege of honoured members of our own calling to be the instruments, under Providence, by which this great blessing has been conferred upon the nation; and we pray that the great Disposer of the issues of life and death may extend His continued protection to your Majesty and to his Royal Highness, and that your Majesty may long reign over a devoted and loyal people.

Signed on behalf of the Council and Fellows of the Society,

ANDREW CLARK, M.D., President.

George-street, Hanover-square, London, Jan. 20th, 1872.

QUEEN ADELAIDE'S DISPENSARY, BETHNAL GREEN.

DR. WELCH has been honorary physician to this dispensary for upwards of seventeen years. On attending at 10 A.M. on the 10th of November last, he found that his patients had been sent away by the Rev. Mr. Coke, on the ground that "he ought" to have attended to see them at the appointed hour—viz., 9 o'clock. Considering this unusual and discourteous treatment of an honorary officer, Dr. Welch requested an apology, and, failing to obtain it, sent in his resignation to the Committee, which was not accepted. At the Committee meeting, Mr. Coke said that "he had given orders that Dr. Welch's prescriptions should not be dispensed as prescribed, because they were too expensive"; and considering that such order might be attended with very serious consequences to the patients, Dr. Welch persisted in placing his resignation in the hands of the subscribers. The matter was again referred to the Committee, and we hope they will again refuse to dispense with the services of a gentleman who has so long and faithfully served them. The interference of the reverend visitor in the matter of prescriptions is perfectly monstrous, and, if permitted, must inevitably lead to the resignation of the whole medical staff.

Prof. Sanders (Edinburgh) is thanked for his communication.

A WARNING TO PUBLIC VACCINATORS.

To the Editor of THE LANCET.

SIR,—The following narrative may serve as a warning to medical men seeking appointments under Boards of Guardians, not to trust the good faith of the latter, but to take care that, before they devote time and labour to their service for the *munificent* remuneration now in vogue, they have so legally bound the guardians hand and foot that there is no possibility of payment being afterwards evaded by their falling back on the mere letter of an Act of Parliament, and involving the too ready aid of the Local Government Board to support them in so doing.

In May, 1870, I was appointed by the Board of Guardians of this union a public vaccinator to one of the districts, and on the 6th of that month received an official letter from the clerk to the Board, informing me of my appointment, and on the faith of it I entered on and performed the duties of the office for *several* months, the vaccination certificates issued by me, and received as authoritative, stating me to be the "public vaccinator." No contract was ever sent me for signature; and, not being a lawyer, I was not aware that any written contract was necessary, and I had no other communication with the guardians on the subject until I sent in my account of vaccination fees, when, to my intense surprise, I was told that the guardians could not pay me, because no contract was sent in to the Poor-law Board for their approval, as required by the 10th section of the Vaccination Act, 1867.

I contend that the resolution of the guardians and the letter of their clerk to me, coupled with my performance of the duties to their knowledge, amounted to a legal contract, and that the Act does not absolutely require a contract in writing; and, further, that as it was no part of my duty to get the contract approved by the Poor-law Board, I am equitably entitled to be paid the paltry fees for the duty I have performed, and that I have no right to suffer for the negligence of the guardians or their clerk in not getting the contracts with me approved by the Poor-law Board; and, lastly, that the Local Government Board ought now, in common honesty, to approve the contract *nunc pro tunc*, so that I may be paid. But all my remonstrances are fruitless, and I am coolly referred, as I before said, to the *strict* letter of the Vaccination Act by way of comfort for the *gross injustice* inflicted upon me. I have, however, the mournful satisfaction of feeling that by a statement of the case in your columns other confiding gentlemen may have their eyes opened in time, to avoid a fate similar to that of,

Your obedient servant,
AUGUSTUS R. TICEHURST,
Medical Officer, 2nd District of the Hastings Union.

January 25th, 1872.

Dr. Sargent (Launceston) will find full particulars in the Students' Number of THE LANCET. It would be well to apply to the various corporations as to the books to be taken up about the time of the examinations.

Medical.—Our correspondent had better place himself in the hands of a surgeon.

OPEN SURGERIES.

To the Editor of THE LANCET.

SIR,—As your correspondent, Mr. de Leifde, says, there is a large, respectable, and hard-working population, whose earnings are such as to prevent their paying a £6 or £7 bill; but it is perfectly idle to say that it is necessary to have an open surgery to supply a thirteen-penny-halfpenny bottle of medicine. What is to prevent the practitioner from charging as low as he likes in a private house? Where is the necessity of having an open shop, and placing on a level with grocers, butchers, and other useful trades, one of the learned professions? Your obedient servant,

February, 1872. R. H. L.

Army Surgeon.—We entirely discredit the statement recently put forward by a military contemporary as to a reduction of the lower ranks in the department by the application of compulsory retirement. It would, in principle, be quite opposed to the whole tenor of Mr. Cardwell's policy—at least as far as we understand it.

THE LATE MR. ROBERT WADE.

THE following resolutions were passed at a vestry meeting of St. Anne, Westminster, held 1st February, 1872:—

That this vestry has heard with unfeigned regret of the death of Mr. Robert Wade, who for upwards of fifty years has resided in this parish, during the last forty years of which he has filled the office of surgeon to the Westminster General Dispensary.

That this vestry has also observed the devotion and kindness which prompted his gratuitous exertions in alleviating the sufferings of the sick poor during so long a period, and takes this opportunity of expressing its sense of the great loss which the public whom he served so ably and unselfishly has sustained by his death. I further tenders to his widow and family its sympathy with their bereavement.

TREATMENT OF ENTERIC FEVER.

To the Editor of THE LANCET.

SIR,—In THE LANCET of Jan. 27th, Dr. Maclagan, of this town, in speaking of enteric fever, after adverting to the bad effect of locking up or constipating the bowels, says that this is the treatment "almost universally adopted in this country, and consists in checking every tendency to diarrhœa. Dr. Todd thus summed up the treatment: 'Restrain diarrhœa and hæmorrhage in typhoid fever; and when you have fairly locked up the bowels, keep them so. Patients will go for four or six days, or even longer, without suffering inconvenience from this state of constipation.' Such is the treatment adopted in 99 per cent. of the cases of typhoid fever which occur in this country."

I cannot accept this as a correct representation of the practice of the present day; and as the article in which these remarks occur has appeared in one of our local newspapers (*Dundee Advertiser*), such representation is calculated, I think, to bring discredit on the profession.

In the Edinburgh medical school it has been taught for many years that it is not good treatment to arrest entirely the diarrhœa; that it should only be checked when severe. I think I am right when I say that that was the impression I gathered about fifteen years ago from the clinical teaching of Dr. Gairdner, now Prof. Gairdner, Glasgow. Dr. Warburton Begbie taught the same. I am told that the same principles were inculcated in the Glasgow medical school.

What say the text-books?—"Most of our patients have had lime-water with milk, especially at the commencement of the diarrhœa, and this they generally state to be agreeable and refreshing; it is, as far as it goes, nourishment, and perhaps the lime-water acts in checking the diarrhœa, though I am by no means confident of this, nor yet quite confident that the diarrhœa ought in all cases to be checked. Some of my personal friends in London and elsewhere, for whose opinion I have a great respect, are utterly opposed to the giving of laxatives, and consider the stopping of the diarrhœa as the great point to be attained. My own experience would rather lead me in a different direction; for I do not think the mere diarrhœa, as such, is often a source of danger; while I am sure that the retention of decomposing matters in the intestine is really one of the greatest dangers we have to contend with. I think, moreover, that there is rather good evidence (better evidence than is usual in such cases) of the favourable results of the French practice of giving saline laxatives in this disease. But I have not dared to carry out this practice systematically in the absence of encouragement nearer home to do so. As a sort of compromise, I have been very diligent in the use of enemata to unload the bowels from below where anything like abdominal distension has occurred."—*Gairdner's Clinical Medicine* (1862), p. 201.

"To restrain excessive diarrhœa, lime-water mixed with milk in equal parts, and taken as a drink, is found to be beneficial, agreeable, refreshing, and nourishing. *It is clear that the diarrhœa ought not to be altogether checked.* Prof. Gairdner, of Glasgow, is in favour of the French practice of giving saline laxatives rather than astringents, also of the diligent use of enemata to unload the bowels from below where anything like abdominal distension has occurred. On the propriety of restraining excessive diarrhœa there can be no question. If it is suddenly arrested, meteorism is produced, and pains in the intestines; or vomiting may supervene with cerebral symptoms, and the febrile phenomena are increased. The diarrhœa is too copious or excessive if the evacuations exceed four or five a day, being of considerable quantity, and fluid."—*Aitken's Science and Practice of Medicine*, vol. i., p. 419.

"Diarrhœa must be restrained, some physicians think checked, if possible, altogether. My own experience, however, leads me to believe that moderate diarrhœa in the early period of the disease is beneficial in some cases, and more especially those in which delirium appears early. In the congested condition of the abdominal viscera which exists in enteric fever, one or two liquid stools in the course of the twenty-four hours, doubtless, acts beneficially in all cases, and our object in the early period of the disease should be to keep the diarrhœa within moderate limits rather than stop it altogether."—*Dr. Horley, Reynolds's System of Medicine*, vol. i., p. 630.

"Aperients, however, should seldom be given, as the bowels will most probably act spontaneously; *but if they do not do so*, a dessertspoonful of castor oil, or a wineglassful of fluid magnesia, or a simple enema, may be administered. Suppose there are symptoms indicative of irritation from the retention of offensive secretions, these matters ought to be gently got rid of by enemata of warm water, which will not only serve to wash out the rectum, but also to excite the peristaltic action of the coats of the bowels, by which the contents of the upper parts of the gut will be urged onward."—*Tanner's Practice of Medicine*, vol. i., p. 248.

I have no other standard works by me; but these show pretty clearly that the practice to lock up the bowels is very generally condemned, although it has been advocated by a few. My own practice for years has been to allow moderate diarrhœa; to give only the most unirritating substances for food, mostly confining patients to milk, generally with lime-water; if the bowels are not moved for two days or so, to give a warm-water enema, and sometimes a small dose of castor oil, in order to clear out the poisonous matters from the intestine; if the diarrhœa become excessive (but what is to be counted excess will vary with different patients), say four stools or more a day, to give small doses of Dover's powder, only employing the stronger astringents in extreme cases; and to allay abdominal tenderness by means of hot poultices, with occasional sinapisms or turpentine stupes.

In my paper on the "Temperature Range in Typhus and Enteric Fever" (*British and Foreign Medico-Chirurgical Review*, October, 1868), although the question of treatment is not discussed, the treatment of nine cases is shown in the charts which are given. In none of these cases, which all recovered, was any drug given to check diarrhœa except lime-water, although there were three, four, or even seven liquid stools a day, except in the case of one patient, who had three grains of Dover's powder every four hours for two or three days. I never understood that my practice was very different from that of most of my fellow-practitioners, and I now know from conversation with several of them that this has been their line of treatment for many years.

Considering these facts, it would be unfortunate that the general public should take up the impression which would arise from the statement that 99 per cent. of the cases of enteric fever in this country are treated on the principle of arresting every tendency to diarrhœa—a treatment which I think the great majority of practitioners who have had any considerable experience in enteric fever must condemn.—Yours, &c.,

J. W. MILLER, M.D.,
Physician to the Dundee Royal Infirmary, &c.

Dundee, Jan. 30th, 1872.

WHERE WAS THE POOR-LAW INSPECTOR?

IF one of the metropolitan members would move for a repetition of the returns made a year or two ago of the dates of the visits paid by the Poor-law inspectors to the different metropolitan workhouses, we should better be able to fix the responsibility for the disgraceful want of linen which has prevailed at the St. Pancras Infirmary since September last. The St. Pancras Infirmary has been sufficiently notorious for its deficiencies, and one might have supposed that its arrangements and administration would have been watched with unusual diligence. And yet it is difficult to conceive that an inspector has recently been round, as otherwise the fact of there being only seven night-shirts amongst some hundreds of patients could scarcely have escaped his observation. We have a grave suspicion that Dr. Bridges has far too many institutions to inspect to do them well and with sufficient frequency.

SEAMEN'S HOSPITAL AT NAPLES.

To the Editor of THE LANCET.

SIR,—I have delayed taking notice of some observations in a late number of THE LANCET, regarding the want of a Seamen's Hospital at Naples, until after the annual general meeting of subscribers to the late hospital, which was fixed for the 15th January, should have taken place.

It may be well to say a few words about the late British-American Hospital here. Opened in the year 1835, it consisted of a flat of a house in a most unsuitable locality; but, such as it was, there can be no doubt that it fulfilled its purpose—i. e., to provide English medical attendance, nursing, and living suitable for sick or injured seamen. In addition, a private room was available at a reasonable rate for those who wished to take advantage of it. In the early part of last year it was deemed advisable to secure a better apartment in a more suitable locality, and a flat was accordingly chosen on the Corso Vittore Emmanuel, which was rented for the purpose at a price which was about half more than it would have brought as a private dwelling-house. Scarcely had the patients been installed when the hospital was shut up by order of the Government, and at present the Committee are engaged in a lawsuit to get rid of the lease on the ground of "force majeure." Representations have been made to the Home authorities to induce them to interfere on our behalf, and efforts are being made to persuade the Italian authorities to give us a portion of an old monastery for the purpose. Although the matter has been before them since July last, nothing has been done, and every day the want of a refuge for our seamen is more and more felt. At the request of our Consul-General, I visited a few days ago a seaman in the "Incurabili." I was very courteously received by the assistant-surgeon in charge, and allowed to make a free examination of the patient, and also of another British subject in the same ward. The treatment was such as I should not adopt in similar cases. The dirt of the place is excessive. It is not the business of a medical man to notice religious controversies; but as the obsessions of Roman Catholic priests may be very annoying to Protestant patients, it is as well to state that very recently an American sailor was baptized in his last moments by a priest, and was found shortly afterwards, by a gentleman attached to the U.S. Consulate, without attendance and covered with flies.

I have had occasion to observe the treatment in the Royal Naval Hospital here, where officers and sailors from our men-of-war are sent in case of necessity. In a medical case which I saw by request of the captain of a man-of war then in port, the treatment was entirely routine, without regard to symptoms or complications, and the diet was very defective. The officers' quarters are, however, clean, and by no means uncomfortable, and in the case which I have mentioned the officer's servant was allowed to attend him.

I hope I shall not be understood in what I have said of the hospitals as running them down. I wish simply to point out that their ways are not as our ways; but we must bear in mind that what may be suitable for a vegetarian Italian will by no means do for a beef-eating Englishman. We have frequently above twenty English vessels of all kinds in port at one time, without counting Americans. From this our want of a hospital may be imagined. In addition, there are many instances of sickness in servants, who have to be sent to the Italian hospitals, where, unless the chaplains are informed, they never hear their own tongue spoken, and can speak to nobody. With a comparatively small resident English population, a number of whom, for reasons into which it is unnecessary to enter here, will not contribute to the support of the hospital, help is urgently needed from home, both in money and influence—influence to get us a hospital.

In conclusion, I shall only say that, except the attendants, there are no paid officials whatever. Your obedient servant,

J. A. MENZIES, M.D. Ed.,
One of the Medical Staff of the late
Naples, Jan. 23rd, 1872. British-American Hospital.

"SUCCESSES AND FAILURES OF A PUBLIC VACCINATOR."

To the Editor of THE LANCET.

SIR,—In justice to the district medical officers of St. Luke's, allow me to call your attention to a misstatement which appears in THE LANCET of the 3rd instant, and which places these gentlemen in a most invidious position.

In the article headed "The Successes and Failures of a Public Vaccinator" is found the following:—"It is the duty of the district medical officers to acquaint the sanitary inspector *with* any case of infectious disease that may arise in their districts." That statement is simply untrue. Mr. Neighbour, the sanitary inspector alluded to, is, by the authority of the Local Government Board, empowered to enter, at proper times, the consulting-room at the dispensary, and examine the medical relief books of the district medical officers. By such means, and from that source, he obtains the information he uses in public in carrying out the Vaccination Act; a very different matter from these gentlemen being placed under the surveillance of the vaccination inspector, and of their playing the part of public informers.

A reader of THE LANCET now for many years, I gladly own my indebtedness to its pages for much valuable information, as a rule conveyed in a style that an educated man may peruse both with pleasure and profit. I, therefore cannot help thinking (nor am I singular in this notion) that the article to which I have alluded must have found its way into your leading columns by mistake. I am, Sir, yours obediently,

February, 1872. C.

*** The writers of signed articles are of course responsible for any statements that they may make.—ED. L.

SMALL-POX IN A COUNTRY GENTLEMAN'S HOUSE.

IF the gentleman has his family and servants properly revaccinated, there need be no danger of small-pox. Should a case occur, we should prefer its isolation in an out-building to sending it in the carriage to the workhouse infirmary. If, however, the guardians are provided with a convenient hospital not too far away, and have a proper ambulance, it would be wise to send the patient, and the guardians would be morally bound to take the case in.

ARMY MEDICAL REORGANISATION.

To the Editor of THE LANCET.

SIR,—If, as surmised by a "Senior Assistant-Surgeon," radical changes will be shortly introduced into the constitution of the Army Medical Department, why is not that determination at once announced? It is unfair to regimental medical officers not to do so, as this reticence on the part of the authorities puts them to an expense which would prove ultimately unnecessary. As it is, the so-called unification will be, when it comes, a very heavy loss to many who have invested various sums in their regiments—a fact, it is to be hoped, which will not be forgotten by those under whose immediate auspices the change may be made. It is certain that on the 1st of April the *personnel* of the department will be entirely changed. This being so, the change should be *finite* in all the grades. Concluding, as I have every reason to do, that a new Warrant is merely a question of time, I confess I do not look with any alarm upon the future, provided fair and equitable rules are issued and adhered to. If, as proposed, we will have only four distinctive grades—viz., Surgeon and Assistant Surgeon-General, Surgeon-Major, and Surgeon, this in itself would be an improvement. Surgeon-Major would be an appropriate and popular title for the present executive field officers of the medical department, both of whom perform exactly the same duties; and substituting Surgeon for Assistant would do away with a good deal of grumbling, and the anomaly of calling an officer, already a Civil Surgeon, an Assistant. Surgeon-General is a time-honoured term in the Army Medical Department, and much more expressive than the one at present in use. Such changes should, however, carry with them a time promotion to be effective, and a limitation to five years in the highest grade and all special or staff appointments. The word "Department" might with advantage be changed to "Royal Surgeons." I see no reason why there should not be Civil and Royal Surgeons as well as Civil and Royal Engineers. This in itself would add to the status of the corps, and medical officers should be, in such a case, never under the command of an officer junior to them according to the date of their relative commissions. The present head-dress is an absurdity, inconvenient and expensive, and impossible to work in. It might be changed with advantage. The uniform should be also suitable for mounted or infantry duties. All future appointments in the militia should be reserved for retired military medical officers, and some practical encouragement given to those officers already in the service who deserve it either by their intellectual attainments or the sanitary and administrative care bestowed upon their respective charges; in fact, upon those who are good officers *sine futuro*. Allowing that it must come at last, the abolition of the purely regimental system would be a manifest pecuniary gain to medical officers, certainly not less than two or three sovereigns a month besides incidentals. The officers of the attached depôts appear to get on well enough in all social matters. I see no reason why attached medical officers should not do so likewise. Their appointments should be, however, for definite periods, and capable of renewal, otherwise they would to a great extent lose their present interest in their charges, or fail in following out the medical history of their men—an acknowledged advantage of prolonged association. The office of Surgeons-Major might be made more responsible, and all unnecessary interference prohibited. There should be more decentralisation and individual responsibility to ensure self-respect and efficiency. A more liberal interpretation of the regulations is absolutely necessary. As it is, in the majority of instances, medical officers, although nominally allowed two months in the year, rarely obtain it, except when supplying a substitute—a heavy tax upon their slender pay. The order requiring medical officers on promotion to provide themselves with an expensive set of surgical instruments, *for the use of the Government*, should be at once rescinded. Such a rule is most unjust. Principal medical officers' names should be shown, as those of Comptroller on the general staff at the respective stations, in the Army List; and as the rank of ensign is abolished, surgeons on joining should certainly, after passing through the Army Medical School, rank as captains, or at all events above lieutenants. Every surgeon-major should be able to retire voluntarily on 16s. 6d. per diem after twenty years' service, and the regulations as to charge pay made more liberal. Many other regulations requiring reform might be mentioned; but those above referred to are absolutely required if the authorities wish to act as they should towards the army medical service.

I am, Sir, yours, &c.,
February, 1872. SPERO MELIORA.

C. A.—An answer to the question is only to be had by offering the work to a medical bookseller. Hildanus was a successful practitioner, and his works are of interest, though chiefly to scholarly surgeons.

RABIES.

To the Editor of THE LANCET.

SIR,—Can any of your readers inform me if "rabies" is known in Australia or New Zealand? Darwin, in his "Voyage of a Naturalist," says it has not appeared in those countries. Yours obediently,

February 6th, 1872. G. F.

THE MEDICAL DIRECTORY FOR 1872.

To the Editor of THE LANCET.

SIR,—I think it right to make some slight comment with reference to the letter of "L. Med., Surg., and Midw.," in your last issue.

The reason that a special examination for the L.M. at the R.C.P. Edin. examination is unnecessary is simply this: Each candidate is as fully and closely examined in Midwifery as in Medicine, and cannot obtain his diploma unless found to be well up in that branch; therefore holding a second examination in Midwifery would only be treading on old ground. I am informed that a candidate can procure the L.M. alone from the R.C.P. Your correspondent would lead one to suppose that a L.M. is better than a certificate of competency. Reflection is needed surely on this point.

I am, Sir, your obedient servant,
February 5th, 1872. ALMA MATER.

ABUSE OF POSTAL CARDS.

THE anti-vaccinationists seem bent upon discovering the lowest depth to which they can descend in carrying on their cruel warfare. We have before us three postal cards, on each of which is printed an impudent statement couched in appropriately vulgar terms, which seems to have been prepared for special use. At any rate, the three cards, evidently addressed by the same hand, have been sent in successive weeks to a public official, who appears to have been singled out for attack because he does not conceal from the public the fact that small-pox continues to be excessively fatal in London and elsewhere. It is needless to say that the sender is careful to avoid giving any clue to his identity. The postal-card system ought to be preserved from abuses of this kind, and we should be glad to hear that an effort had been made to trace out the authors of this latest discreditable manifestation of anti-vaccination feeling.

Mr. J. Clarke, (Lynton.)—The subject referred to by our correspondent shall be noticed next week.

UNQUALIFIED ASSISTANTS.

To the Editor of THE LANCET.

SIR,—Seeing a letter in your last impression on the above subject, permit me to occupy a small space.

My age is twenty-six. I was apprenticed to a chemist in January, 1862, for three years, and had to read and find out things for myself. After my release, I went as an assistant, and obtained three guineas per month. In the December of that same year I passed the "Minor" examination at the Pharmaceutical Society (my only time for study being after 10.30 P.M. and before 7.30 A.M.). I received a certificate as a qualified assistant. I then left the chemistry, and went as an assistant to a surgeon, where I obtained £45 per annum (in-door). I have been under four masters, besides managing a branch, and acting as *locum tenens* assistant. In all cases I have left to obtain a higher salary, and each one has expressed regret at my leaving. I have all testimonials in the original. I now hold an out-door situation, with furnished rooms and attendance, at £84 per annum, and half midwifery fees, nearly another £20 (these are out of town). I have related this fully to prevent unnecessary questioning or correspondence. Wherever I've been, or with whom I may converse on the subject, the old tale comes, "I was obliged to part with my assistant, he used to get so intoxicated"; and so it is, "drunken assistants" are not worth 30s. much less £30 per annum. If anyone has to complain it is a master. Medical assistants have disgraced the profession, and no master ought to employ any assistant who has not passed some examination. This is the mistake. Here come in errand-boys, pot-boys, and others. I know of a L.K.Q.C.P.I. who employed an errand-boy, and taught him to dispense, &c., and he came under my notice as an assistant. A customer asked for paregoric elixir, and he gave her ipecacuanha wine, and said he thought, as it was for a cough, it was all the same. Is this not a disgraceful way of bringing the public under such beings for treatment? Any assistant who perseveres, and is competent, unassuming, truthful, honest, and temperate, can obtain a good situation, and be respected. I remain, Sir, your obedient servant,

February, 1872. AN ASSISTANT.

To the Editor of THE LANCET.

SIR,—May I ask a very short space in your journal in order to reply to the letter of Mr. J. F. Burns, which appeared in your last number, relative to the hardships of unqualified assistants?

Before commenting on the letter of Mr. Burns, allow me to preface my remarks by dividing this section of the medical profession into three subsections.

1. Those who are acting as unqualified assistants, having completed their course of study, and passed the first half or two-thirds of the professional examination (as the case may be), and who are putting into practice that which they have in former years, both in the lecture-room and hospital wards, gained by study and observation.

2. Those who assist for a few months in summer, not having completed their studies, and who, as a rule, return to the classes for the winter session.

3. Those who are *unfortunate* enough to have made up their minds to remain unqualified assistants for an indefinite period, caring nothing if they should never qualify.

What surprises me about Mr. Burns is that he, who is supposed to have had a thorough medical training, should, in the first place, have accepted £30 per annum; and, secondly, be content *to remain* for that salary, there being numerous other situations where, with the knowledge he *ought* to possess, he should receive a proper remuneration.

I trust that this may put the subject agitated in a proper light, and clearly show both sides of the question, exculpating, not tooth-extracting druggists, but gentlemen, such as the one whom I have at present the honour to act for in the capacity of an

UNQUALIFIED ASSISTANT OF THE 1ST SECTION.

Manchester, Feb. 6th, 1872.

THE Master of St. George's-in-the-East Workhouse complains of our statement that the Local Government Board "verified the charges" which were brought against him. It would, perhaps, have been more precise to quote the words of the Local Government Board: that, in their opinion, "the charges were proved," which is, indeed, obviously the meaning of our words.

OVARIOTOMY.

To the Editor of THE LANCET.

SIR,—Mr. Rigden has kindly given me the number of cases for five years. I asked for the number of *all* the cases which have been done at the Soho Hospital and the number of recoveries, and I should be much obliged if he would let me have information on these points.—Yours, &c.,

February, 1872. LAWSON TAIT.

PERCHLORIDE OF IRON INJECTION.

To the Editor of THE LANCET.

SIR,—I have read with much interest Dr. Playfair's account of a case of "Fatal Post-partum Hæmorrhage" in THE LANCET of Jan. 27th. Would Dr. Playfair kindly say of what strength was "the solution of perchloride of iron" repeatedly injected into the uterus?—Yours obediently,

February 5th, 1872. A. B.

Notting-hill,—Our correspondent should have told us the source of the titles which he mentions. If they are English, they entitle the possessor to registration; if they are not, and yet are from a real University, it is doubtful whether the use of them amounts to a breach of the Medical Act. The question has been differently decided by magistrates, and, as yet, there is no decision of the superior courts.

POISONING BY BICHROMATE OF POTASH.

To the Editor of THE LANCET.

SIR,—On Sunday morning, July 4th, 1869, I was summoned hastily by the police at 7.15 A.M. to a street near the Regent's-park, where a French polisher was supposed to be dying from poison. On entering the room I found a man, aged about thirty-seven, pale, and apparently dying from the effects of cramp, vomiting, and severe purging of greenish evacuations. Pupils dilated; pulse scarcely perceptible. It was stated by those present he had taken a strong solution of the bichromate of potash, containing nearly two ounces of the salt; the liquid also contained some American ash, or other deliquescent salt used in his occupation. I administered an emetic of sulphate of zinc in warm water, and with the help of my assistant, Mr. Verdon, quickly made use of the stomach-pump, injecting water and removing the contents. The stomach was also washed and cleansed by further injections. A dose of olive oil and bland diluents were subsequently swallowed with benefit. By degrees improvement took place, and the patient gave a history of the case, stating he was married and the father of two children, but his wife had left him for ten days. Owing to domestic discomfort he had been drinking freely and searching for his wife during Saturday night. On coming home at five in the morning he felt much depressed, and swallowed the poison in order to commit suicide.

The man was removed to the St. Pancras Infirmary for medical treatment, and I visited him at that institution about nine hours after the above occurrence. He complained of great pain in the shoulders and lower extremities; but there was no gastric irritation nor tenderness over the abdomen.

On making further inquiry next day, still greater improvement was reported, and I have since heard he was discharged cured at the end of a week. Yours truly,

HENRY CHAS. ANDREWS, M.D.

Oakley-square, St. Pancras, Feb. 5th, 1872.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Sanders, Edinburgh; Dr. Barnes; Mr. Bader; Dr. Shapter; Dr. Clarke, Lynton; Mr. Horder, Bournemouth; Dr. Crowther; Mr. Sansom, Kidderminster; Dr. Charles, Belfast; Mr. W. Rayner, Uxbridge; Dr. Winkfield, Shirley; Mr. Kean; Dr. Husband; Mr. Jeaffreson, Newcastle-on-Tyne; Mr. Ede; Dr. Owen, Bron Philip; Mr. Fairload, Lucknow; Mr. Pughe, Brighouse; Mr. Bennett, Weston-super-Mare; Mr. J. Kenyon; Mr. Eadon, Sheffield; Dr. Andrew, Earl Soham; Mr. Hay, Hogsthorpe; Mr. Allen; Mr. Howe; Mr. Skinner; Dr. Batchelor, Stratford-le-Marye; Mr. Thomas; Dr. Yeo; Dr. Hunter, Forres; Mr. Fraser; Mr. Morgan, Bangor; Mr. Harris, Sidmouth; Dr. Miguel, Barcelona; Mr. Hansford; Mr. Briggs; Mr. Capes; Mr. Maunsell; Mr. Hunt; Mr. Crane, Dingwall; Mr. Sidey, Edinburgh; Dr. Sargent, Launceston; Mr. Bailey, Hendon; Mr. Baker; Dr. Moore, Cambridge Heath; Dr. Maclagan, Dundee; Mr. E. Calthrop, Birkenhead; Mr. Howell, York; Mr. Shepherd; Mr. Edmund, Douglas; Mr. J. Black, Elgin; Mr. Cranfield; Mr. Bell; Dr. Maher, Egremont; Mr. H. Barnicott; Dr. Berbower, Ohio, U.S.; Mr. Sharp, Evesham; Mr. Gream, Manchester; Mr. W. Williams, Llanberis; Mr. Channing; Mr. Robertson, Invergordon; Mr. Reed, Ipswich; Mr. Clarke, Plymouth; Mr. Porter, Selby; Mr. Cappe, Crickhowell; Mr. Miller, Caterham; Mr. Mackintosh, Stirling; Mr. Hind; Mr. Walker, Middlesborough-on-Tees; Mr. Pulvermacher; Mr. Easton, Bedford; Mr. E. Lund, Manchester; Mr. J. Irwin; Mr. W. Robins, Stroud; Mr. Bowers; Mr. J. Carr, Douglas; Mr. Keith, Dundee; Mr. Higgins, Lynn; Mr. Curry, Penrith; Mr. Morgan; Mr. Ashley, Redcar; Dr. Chater, Florence; Mr. Seddon, Hinckley; Mr. Davies, Mountain Ash; Mr. Kelly, Ballymena; Mr. Williams, Talgarth; Mr. Holmes; Mr. Jellye, Donnington; Mr. Devenish, Exmouth; Mr. Hoare, Birmingham; G. F.; E. P. W.; Medical; S. K. A.; A. B.; Radius; B. H. L.; Unqualified Assistant; G. T. C.; A very Unqualified Assistant; A Foreign Graduate; M. A. B.; Alma Mater; An Assistant; &c. &c.

Hull Evening News, Elgin Courant, Cincinnati Clinic, Manchester Courier, Arkansas Journal, Dundee Advertiser, Investors' Guardian, Porcupine, Le Mouvement Médical, New York Times, Uxbridge Marcel, Naval and Military Gazette, Marylebone Mercury, Charity Organization Reporter, Midland Counties Gazette, Salisbury and Winchester Journal, and *Sporting Gazette* have been received.

NOTICE TO SUBSCRIBERS.

IN conformity with the New Regulations of the Post-office authorities, the numbers of THE LANCET are now issued in an unstitched form only. The terms of Subscription are as follows:—

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year	£1	12	6	Six Months	£0	16	3

TO THE COLONIES. TO INDIA.

One Year	£1	14	8	One Year	£1	19	0

Post-office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post-office, Charing-cross.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.